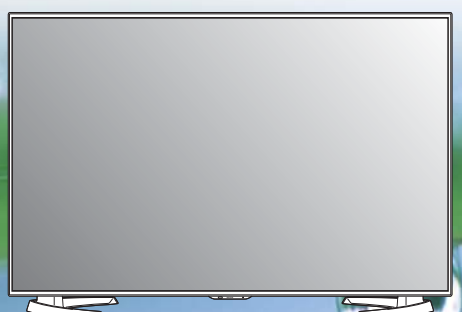
SHARP

LC-70UD27U
LC-60UD27U

AQUOS

LIQUID CRYSTAL TELEVISION
TÉLÉVISEUR À CRISTAUX LIQUIDES
TELEVISOR DE CRISTAL LÍQUIDO

OPERATION MANUAL
MODE D'EMPLOI
MANUAL DEL USUARIO



HDTV HIGH-DEFINITION TELEVISION
DOLBY DIGITAL PLUS
HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE
SmartCentral™
Wi Fi CERTIFIED
Wi-Fi PROTECTED SETUP
Ultra HD 3840 x 2160
THX 2K DISPLAY
SDHC

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IMPORTANT INFORMATION

IMPORTANT:
To aid reporting in case of loss or theft, please record the TV's model and serial numbers in the space provided.
The numbers are located at the rear and left side of the TV.

Model No.:

Serial No.:

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrow-head symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within a triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

WARNING: FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

CAUTION: This product satisfies FCC regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances such as radios and televisions, use shielded cables and connectors for connections.

DECLARATION OF CONFORMITY:
SHARP LIQUID CRYSTAL TELEVISION, MODEL LC-70UD27U/LC-60UD27U
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
RESPONSIBLE PARTY:
SHARP ELECTRONICS CORPORATION
1 Sharp Plaza, Suite 1, Mahwah, New Jersey 07495-1123
TEL: 1-800-BE-SHARP
For Business Customers: URL http://www.sharpusa.com

INFORMATION:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio/TV technician for help.

IMPORTANT INFORMATION

FCC Compliance Statement
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Wireless Radio
For product available in the USA/Canada market, only channel 1–11 can be operated. Selection of other channels is not possible. This device is going to be operated in 5.15–5.25GHz frequency range, it is restricted in indoor environment only.
Important: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
FCC Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Industry Canada Statement
This Class B digital apparatus complies with CAN ICES-003(B)/NMB-3(B)

Wireless Radio
For product available in the USA/Canada market, only channel 1–11 can be operated. Selection of other channels is not possible.
The device could automatically discontinue transmission in case of absence of information to transmit, or operational failure.
Note that this is not intended to prohibit transmission of control or signaling information or the use of repetitive codes where required by the technology.
Important: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
IC Radiation Exposure Statement: This device complies with IC RSS-210 rules; Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept interference recieved, including interference that may cause undesired operation.

"Note to CATV system installer: This reminder is provided to call the CATV system installer's attention to Article 820 of the National Electrical Code that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical."

DEAR SHARP CUSTOMER

Thank you for your purchase of the Sharp Liquid Crystal Television. To ensure safety and many years of trouble-free operation of your product, please read the Important Safety Instructions carefully before using this product.

IMPORTANT SAFETY INSTRUCTIONS

Electricity is used to perform many useful functions, but it can also cause personal injuries and property damage if improperly handled. This product has been engineered and manufactured with the highest priority on safety. However, improper use can result in electric shock and/or fire. In order to prevent potential danger, please observe the following instructions when installing, operating and cleaning the product. To ensure your safety and prolong the service life of your Liquid Crystal Television, please read the following precautions carefully before using the product.

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with dry cloth.
7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11) Only use attachments/accessories specified by the manufacturer.
12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.

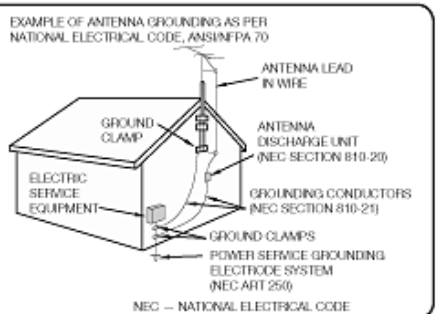
13) Unplug this apparatus during lightning storms or when unused for long periods of time.
14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Additional Safety Information

15) Power Sources—This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
16) Overloading—Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
17) Object and Liquid Entry—Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
18) Damage Requiring Service—Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    a) When the AC cord or plug is damaged,
    b) If liquid has been spilled, or objects have fallen into the product,
    c) If the product has been exposed to rain or water,
    d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation,
    e) If the product has been dropped or damaged in any way, and
    f) When the product exhibits a distinct change in performance - this indicates a need for service.
19) Replacement Parts—When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
20) Safety Check—Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
21) Wall or ceiling mounting—When mounting the product on a wall or ceiling, be sure to install the product according to the method recommended by the manufacturer.

IMPORTANT SAFETY INSTRUCTIONS

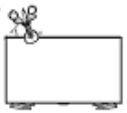
- Outdoor Antenna Grounding — If an outside antenna is connected to the television equipment, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges.
  Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.


EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE, ANSI/NFPA 70
ANTENNA LEAD IN WIRE
GROUND CLAMP
ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)
ELECTRIC SERVICE EQUIPMENT
GROUNDING CONDUCTORS (NEC SECTION 810-21)
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250)
NEC — NATIONAL ELECTRICAL CODE

- Water and Moisture — Do not use this product near water - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
- Stand — Do not place the product on an unstable cart, stand, tripod or table. Placing the product on an unstable base can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. When mounting the product on a wall, be sure to follow the manufacturer's instructions. Use only the mounting hardware recommended by the manufacturer.
- Selecting the location — Select a place with no direct sunlight and good ventilation.
- Ventilation — The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.
- The front panel used in this product is made of glass. Therefore, it can break when the product is dropped or applied with impact. Be careful not to be injured by broken glass pieces in case the panel breaks.
- Heat — The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.
- The Liquid Crystal panel is a very high technology product with 8,294,400 pixels, giving you fine picture details.Occasionally, a few non-active pixels may appear on the screen as a fixed point of blue, green or red. Please note that this does not affect the performance of your product.
- Lightning — For added protection for this television equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the equipment due to lightning and power-line surges.
- Power Lines — An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
- To prevent fire, never place any type of candle or flames on the top or near the TV set.
- To prevent fire or shock hazard, do not place the AC cord under the TV set or other heavy items.

IMPORTANT SAFETY INSTRUCTIONS

- Do not display a still picture for a long time, as this could cause an afterimage to remain.
- To prevent fire or shock hazard, do not expose this product to dripping or splashing. No objects filled with liquids, such as vases, should be placed on the product.
- Do not insert foreign objects into the product. Inserting objects in the air vents or other openings may result in fire or electric shock. Exercise special caution when using the product around children.



Precautions when transporting the TV

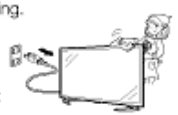
- When transporting the TV, never carry it by holding or otherwise putting pressure onto the display. Be sure to always carry the TV by two people holding it with two hands.

Caring for the cabinet

- Use a soft cloth (cotton, flannel, etc.) and gently wipe the surface of the cabinet.
- Using a chemical cloth (wet/dry sheet type cloth, etc.) may deform the components of the main unit cabinet or cause cracking.
- Wiping with a hard cloth or using strong force may scratch the surface of the cabinet.
- If the cabinet is very dirty, wipe with a soft cloth (cotton, flannel, etc.) soaked in neutral detergent diluted with water and thoroughly wrung out, and then wipe with a soft dry cloth.
- Avoid using benzene, thinner, and other solvents, as these may deform the cabinet and cause the paint to peel off.
- Do not apply insecticides or other volatile liquids.
  Also, do not allow the cabinet to remain in contact with rubber or vinyl products for a long period of time. Plasticizers inside the plastic may cause the cabinet to deform and cause the paint to peel off.

Caring for the front panel

- Turn off the main power and unplug the AC cord from the wall outlet before handling.
- Gently wipe the surface of the front panel with a soft cloth (cotton, flannel, etc.).
  To protect the front panel, do not use a dirty cloth, liquid cleaners, or a chemical cloth (wet/dry sheet type cloth, etc.). This may damage the surface of the front panel.
- Wiping with a hard cloth or using strong force may scratch the surface of the front panel.
- Use a soft damp cloth to gently wipe the front panel when it is really dirty.(It may scratch the surface of the front panel when wiped strongly.)
- If the front panel is dusty, use an anti-static brush, which is commercially available, to clean it.
- To avoid scratching the frame or screen, please use a soft, lint free cloth for cleaning. Approved cleaning cloths are available directly from Sharp in single (00Z-LCD-CLOTH) or triple (00Z-LCD-CLOTH-3) packs. Call 1-800-BE-SHARP for ordering, or VISIT http://www.sharpusa.com/SharpDirect.



CHILD SAFETY:

PROPER TELEVISION PLACEMENT MATTERS

THE CONSUMER ELECTRONICS INDUSTRY CARES

- Manufacturers, retailers and the rest of the consumer electronics industry are committed to making home entertainment safe and enjoyable.
- As you enjoy your television, please note that all televisions – new and old- must be supported on proper stands or installed according to the manufacturer's recommendations. Televisions that are inappropriately situated on dressers, bookcases, shelves, desks, speakers, chests, carts, etc., may fall over, resulting in injury.

TUNE IN TO SAFETY

- **ALWAYS** follow the manufacturer's recommendations for the safe installation of your television.
- **ALWAYS** read and follow all instructions for proper use of your television.
- **NEVER** allow children to climb on or play on the television or the furniture on which the television is placed.
- **NEVER** place the television on furniture that can easily be used as steps, such as a chest of drawers.
- **ALWAYS** install the television where it cannot be pushed, pulled over or knocked down.
- **ALWAYS** route cords and cables connected to the television so that they cannot be tripped over, pulled or grabbed.

WALL OR CEILING MOUNT YOUR TELEVISION

- **ALWAYS** contact your retailer about professional installation if you have any doubts about your ability to safely mount your television.
- **ALWAYS** use a mount that has been recommended by the television manufacturer and has a safety certification by an independent laboratory (such as UL, CSA, ETL).
- **ALWAYS** follow all instructions supplied by the television and mount manufacturers.
- **ALWAYS** make sure that the wall or ceiling where you are mounting the television is appropriate.
  Some mounts are not designed to be mounted to walls and ceilings with steel studs or cinder block construction. If you are unsure, contact a professional installer.
- Televisions can be heavy. A minimum of two people is required for a wall or ceiling mount installation.

MOVING AN OLDER TELEVISION TO A NEW PLACE IN YOUR HOME

- Many new television buyers move their older CRT televisions into a secondary room after the purchase of a flat-panel television. Special care should be made in the placement of older CRT televisions.
- **ALWAYS** place your older CRT television on furniture that is sturdy and appropriate for its size and weight.
- **NEVER** place your older CRT television on a dresser where children may be tempted to use the drawers to climb.
- **ALWAYS** make sure your older CRT television does not hang over the edge of your furniture.

CE.org/safety

CEA
Consumer Electronics Association

IMPORTANT SAFETY INSTRUCTIONS

Wireless LAN

This TV has received the following certifications.
- Wi-Fi CERTIFIED™ (certification program from the Wi-Fi Alliance®)
- Wi-Fi Protected Setup™ (certification program from the Wi-Fi Alliance®)

FCC
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. To comply with the FCC RF exposure compliance
requirements, this device and its antenna must not be co-located or operated in conjunction with any other antenna or transmitter.
The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems;
The maximum antenna gain permitted (for devices in the bands 5250-5350 MHz and 5470-5725 MHz) to comply with the e.i.r.p. limit; and High-power radars are allocated as primary users (meaning they have priority) of the bands 5250-5350 MHz and 5650-5850 MHz and these radars could cause interference and/or damage to LE-LAN devices.

IFETEL
This equipment operates on a secondary basis and, consequently, must accept harmful interference, including from station of the same kind, and may not cause harmful interference to systems operating on a primary basis.
CONTAINS TRANSMITTER MODULE IFETEL ID: RCPSHDH13-2254
Brand: SHARP
Model: DHUB-SP1

IMPORTANT SAFETY INSTRUCTIONS

Bluetooth

Notes on Radio Wave Certification in the U.S.A. and Canada

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

"This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter."

FCC/INDUSTRY CANADA NOTICE

This device complies with Part 15 of FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.
This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exprosure rules. This equipment has very low levels of RF energy that are deemed to comply without testing of specific absorption ratio (SAR).

FCC CAUTION

Changes or modifications not expressly approved by Hosiden responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
Reorient or relocate the receiving antenna.
Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
Consult the dealer or an experienced radio/TV technician for help.

This Class B digital apparatus complies with Canadian ICES-003

Le présent appareil est conforme aux la prtie 15 des règles de la FCC et CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'uitilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles les radioélectriques (RF) de la FCC lignes directrices d'exposition dans le Supplément C à OET65 et d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'IC. Cet équipement émet une énergie RF très faible qui est considérée conforme sans évaluation du débit d'absorption spécifique (DAS).

Cet appareil numérique de la classe B est conforme à la norme NMB-3 du Canada.

■ TV

Notas sobre la Certificación de Radiodifusión en México

- IFETEL: RCPSHDH13-2254
- Nombre de la marca del módulo con licencia: SHARP CORPORATION
- Nombre de modelo del módulo con licencia: ARC0517
- Módulo ARC0517 instalado adentro de esta gafas

PRECAUCIÓN

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

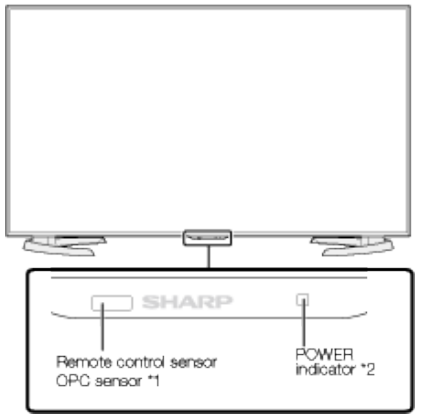
Número de licencia para la certificación de radiodifusión

Estados Unidos CONTAINS FCC ID: NKR-SP1
Canadá CONTAINS IC: 4441A-SP1

Part Names

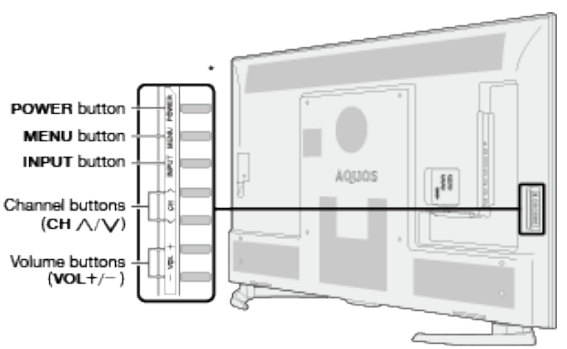
TV

(Front)



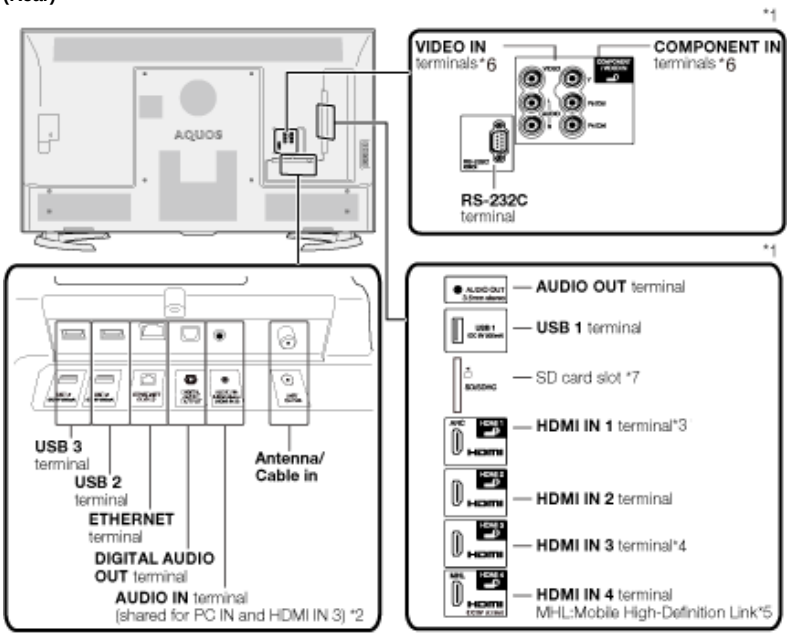
*1 See page 4-6.
*2 See page 4-31.

(Side)



* See pages 2-1, 4-4 and 4-31 for button operations.

(Rear)



*1 See the Setup Guide.
And see page 6-1 for external equipment connection.
*2 See page 7-1 for details on the Audio Select function.
*3 Use HDMI IN 1 to connect ARC-compatible equipment.
*4 Connect 4K signals (HDCP2.2) to the HDMI IN 4 terminal.
HDMI IN3 is suitable for 4K(2160p, 4:4:4) signal.
If there is a problem viewing a signal through the HDMI IN 3 video input, please use either HDMI IN 1, 2 or 4 video input.
HDMI IN1: 4K60P 4:2:0
HDMI IN2: 4K60P 4:2:0
HDMI IN3: 4K60P 4:4:4
HDMI IN4: 4K60P 4:2:0
*5 See page 6-6.
*6 See page 4-19 for details on the COMPONENT/VIDEO select function.
*7 See page 5-1.

- The illustrations and on-screen displays in this operation manual are for explanation purposes and may vary slightly from the actual operations.

Part Names

Remote Control Unit

NOTE

- When using the remote control unit, point it at the TV.

1 POWER: Switch the TV power on or enter standby.

2 TV, STB, DVD•VCR, AUDIO: Switches the remote control for TV, STB, BD, DVD, VCR and AUDIO operation.
(See pages 5-14 to 5-17 for details.)
* To enter the code registration mode, you need to press an appropriate button (**STB**, **DVD•VCR** or **AUDIO**) and **DISPLAY** at the same time.

3 External equipment operational buttons: Operate the external equipment.

4 DISPLAY: Display the channel information.

5 OPTION: Display the Link Operation Menu screen. This button will function only when AQUOS LINK is used.
(See pages 6-1 to 6-5 for details.)

6 SLEEP: Set the sleep timer.
(See page 3-9.)

7 0–9: Set the channel.
(See pages 3-1 and 5-17.)

8 • (DOT): Set the channel.
(See pages 3-1 and 5-17.)

9 CC: Display captions from a closed-caption source.
(See page 3-12 to 3-13)

10 AV MODE: Select an audio or video setting.
(See page 3-10.)

11 MUTE: Mute the sound.
(See page 3-3.)

12 VOL+/-: Set the volume.
(See page 3-2.)

13 MENU: Display the menu screen.
(See page 4-1.)

14 2D/3D: Set the 3D Surround.
(See page 3-3.)

15 ▲/▼/◄/►, ENTER: Select a desired item on the screen.

16 EXIT: Turn off the menu screen.

17 FAVORITE CH: Set the favorite channels.
(See page 4-15.)

18 A, B, C, D: Select 4 preset favorite channels in 4 different categories.
(See page 4-15.)

While watching, you can toggle the selected channels by pressing **A**, **B**, **C** and **D**.

19 MANUAL: Display the operation manual.

20 POWER (SOURCE): Turns the power of the external equipment on and off.

Remote Control Unit (Continue)

NOTE

- When using the remote control unit, point it at the TV.

21 FREEZE: Set the still image. Press again to return to normal screen.
(See page 3-4.)

22 AUDIO: Selects the MTS/SAP or the audio mode during multichannel audio broadcasts.
(See page 3-8.)

23 ENT: Jumps to a channel after selecting with the **0**–**9** buttons.

24 FLASHBACK: Return to the previous channel or external input mode.
(See page 3-5.)

25 VIEW MODE: Select the screen size.
(See pages 3-14 to 3-16.)

26 INPUT: Select a TV input source.
(See page 2-1.)

27 CH∧/∨: Select the channel.
(See page 3-1.)

28 SmartCentral: Display the application window.
(See page 3-6.)

29 RETURN: Return to the previous menu screen.

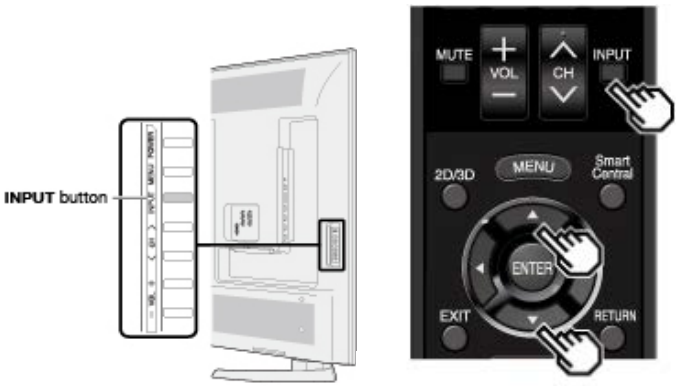
30 NETFLIX: Display the Netflix screen.
If you press the NETFLIX button when the TV is turned off, the TV turns on and the NETFLIX screen is displayed.
(See page 3-7.)

31 FAV APP 1, 2, 3: You can assign your favorite applications to these buttons.
(See page 8-11.)

Watching TV

Displaying an External Equipment Image

To view external source images, select the input source by pressing **INPUT** on the remote control unit or on the TV.



Example

1 Press **INPUT**.
- The INPUT list screen displays.

2 Press ▲/▼ to select the input source.
- An image from the selected source automatically displays.
- If the corresponding input is not plugged in, you cannot change the input. Be sure to connect the equipment beforehand.

- You can also select the input source by pressing **INPUT**.
- Each time **INPUT** is pressed, the input source toggles.

TV → HDMI1 - - - → Home Network → SD/SDHC/USB → Screen Sharing → Bluetooth

Initial Installation

Perform the following steps before you press **POWER** on the remote control unit.

1. Insert the batteries into the remote control unit.
2. Connect the antenna cable to the TV.
3. Plug in the AC cord to the AC outlet.

Language (Language setting)
Select from among 3 languages: English, French and Spanish.

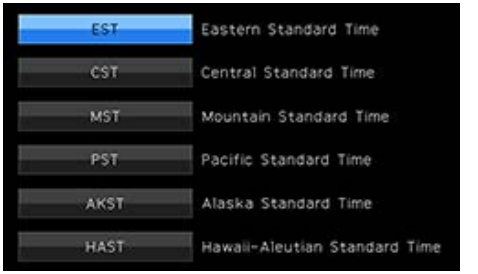
1 Press ▲/▼ to select the desired language listed on the screen, and then press **ENTER**.

Location & Time
Make settings for the country, area and time zone where you use the TV.

2 Press ▲/▼ to select "United States", "Canada" or "Mexico", and then press **ENTER**.

3 Press ▲/▼ to select the time zone where you are using the TV, and then press **ENTER**.

Example



- The time zone differs depending on the selected country.
- The factory preset value is the time zone for the capital of the selected country.

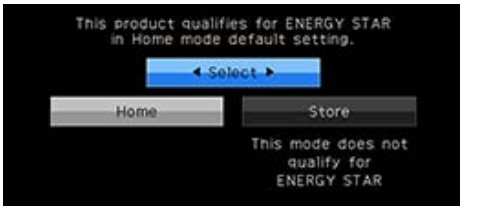
Initial Installation (Continue)

4 Press ▲/▼ to select the Daylight Savings Time, and then press **ENTER**.

- "Auto" is the default selection.

TV Location
Select "Home" or "Store" for the location where you plan to install the TV.

5 Press ◀/▶ to select "Home" or "Store". Press **ENTER** to enter the setting.


This product qualifies for ENERGY STAR in Home mode default setting.
◀ Select ▶
Home
Store
This mode does not qualify for ENERGY STAR

Home: "Power Saving" is set to "Advanced", and AV MODE is set to "STANDARD".

Store: "Power Saving" is set to "Off" and AV MODE is set to "DYNAMIC (Fixed)". Picture Reset and Feature Demo can be set.

Picture Reset: AV MODE will be set to "DYNAMIC (Fixed)" regardless of whether Picture Reset is "On" or "Off".

- If you select "On" and there is no operation for 30 minutes:
  - AV MODE will be reset to "DYNAMIC (Fixed)".
- When "Off" is selected:
  - Even after 30 minutes elapses, AV MODE is not reset to "DYNAMIC (Fixed)".

Feature Demo: When "On" is selected, after all the settings are completed, the Feature Demo screen is displayed if there is no operation for several minutes.

Initial Installation (Continue)

Antenna & Cable/STB

Select the type of connection you will use to watch TV.

6 Press ◀/▶ to select "Antenna & Cable" or "Set-top box", and then press **ENTER**.

To watch TV via an antenna or cable connection (without using a set-top box):

Select "Antenna & Cable", and then go to step 7.

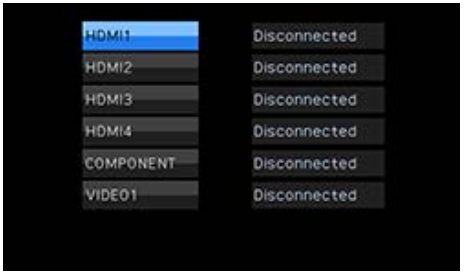
To watch TV via a set-top box:

①Select "Set-top box", and then press **ENTER**.

②Check that the set-top box connected to the TV is on.

③Press ▲/▼ to select the input to which the set-top box has been connected.

- If your Set-top box is turned off, "Disconnected" might be shown.



④To watch TV, select the input source corresponding to the terminal connected to the set-top box. When doing so, you must make the setting to skip "TV". Press ◀/▶ to select "On", and then press **ENTER**.

- When this is set to "On", the channel on the TV cannot be changed using the remote control unit or menu. (e.g. CH ∧/∨, Favorite CH, etc.)
- See page 4-20 for details on the Input Skip function.

⑤Press **INPUT** to select the input source corresponding to the terminal connected to the set-top box. Make the necessary settings on the connected external equipment.

- See the operation manual of the connected equipment for setting up the equipment.

Air/Cable (Antenna setting)

Make sure what kind of connection is made with your TV when selecting "Air" or "Cable".

7 Press ◀/▶ to select "Air" or "Cable".

Press **ENTER** to enter the setting.

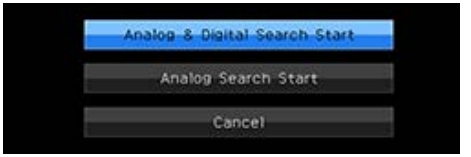
Initial Installation (Continue)

CH Search (Channel search)
Channel auto search makes the TV look for all channels viewable in the set area.

8 When "Air" is selected in Antenna setting:
Press ◀/▶ to select "Start", and then press **ENTER**.

When "Cable" is selected in Antenna setting:

①Press ▲/▼ to select "Analog & Digital Search Start" to search both analog and digital broadcasts, or to select "Analog Search Start" to search only analog broadcasts, and then press **ENTER**.



- The Channel search will start automatically.
- To exit the Channel search screen, select "Cancel", and then press **ENTER**.

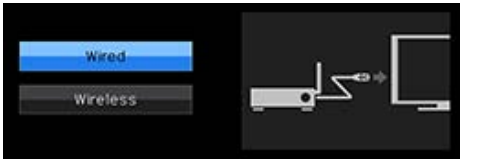
②The Channel search results may include scrambled channels or channels that are not viewable in the set area. Press ◀/▶ to select "Yes", and then press **ENTER** to remove scrambled channels.

Smart TV
When you connect to the Internet on the TV, select the desired connection method and follow the instructions shown on the display.

- Wireless LAN connection is possible only when the WPS (push button) method is used. If any other method is used, make settings by Smart TV > Internet Setup > Internet Connection. (See pages 8-2 to 8-4.)

9 Press ◀/▶ to select "Yes", and then press **ENTER**.

10 Press ▲/▼ to select "Wired" or "Wireless", and then press **ENTER**.



Initial Installation (Continue)

Connection using an ETHERNET cable:

①Select "Wired" and press **ENTER**.

② Confirm that the TV is properly connected with the router, and then press "Next". Follow the instructions on the display to perform the connection test.

Wireless LAN connection by the WPS method:

① Select "Wireless" and press **ENTER**.

② Follow the instructions on the display, and finalize the connection after testing its viability.

NOTE

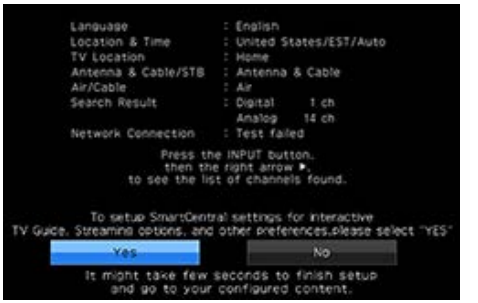
- After you finish configuring the network settings, configure the "TV Name Setting", "Remote Control App" settings.
  (See page 4-26, 7-2.)
- When you change the network settings, refer to Smart TV > Internet Setup > Internet Connection.
  (See pages 8-2 to 8-4.)

Completed

11 The settings confirmation screen is displayed. Confirm the information displayed on the screen, and then press **ENTER**.

Examples of the settings confirmation screen

When one or more channel is received after "Antenna & Cable" was selected in step 6 and a search was carried out.


Language : English
Location & Time : United States/EST/Auto
TV Location : Home
Antenna & Cable/STB : Antenna & Cable
Air/Cable : Air
Search Result : Digital 1 ch
Analog 14 ch
Network Connection : Test failed
Press the INPUT button,
then the right arrow ▶,
to see the list of channels found.
To setup SmartCentral settings for interactive
TV Guide, Streaming options, and other preferences,please select "YES"
Yes
No
It might take few seconds to finish setup
and go to your configured content.

When no channel is received after "Antenna & Cable" was selected in step 6 and a search was carried out.

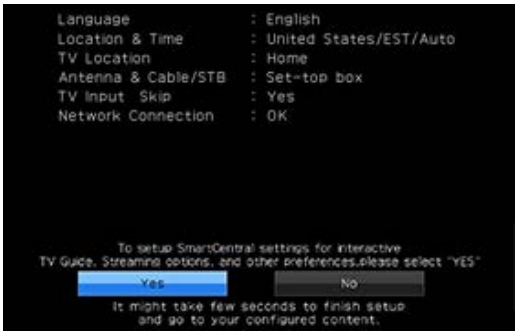
Language : English
Location & Time : United States/EST/Auto
TV Location : Home
Antenna & Cable/STB : Antenna & Cable
Air/Cable : Air
Search Result : No channel
Network Connection : Test failed
TV Name : AQUOS
Remote Control App : Enable
Channel not found.
Antenna/Cable are not properly connected or Air/Cable setup is incorrect.
Please check your Antenna/Cable connection
and Air/Cable setup.
To setup SmartCentral settings for interactive
TV Guide, Streaming options, and other preferences,please select "YES"
Yes
No
It might take few seconds to finish setup
and go to your configured content.

Initial Installation (Continue)

NOTE

- If no channel is found, confirm the type of connection made with your TV and try "Easy Setup" again. (See page 4-13.)
- To see the list of channels found during Channel search, press **INPUT**, and then press ▶.

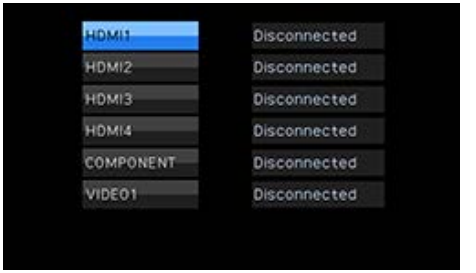
When "Set-top box" was selected in step 6.


Language : English
Location & Time : United States/EST/Auto
TV Location : Home
Antenna & Cable/STB : Set-top box
TV Input Skip : Yes
Network Connection : OK
To setup SmartCentral settings for interactive TV Guide, Streaming options, and other preferences,please select "YES"
Yes
No
It might take few seconds to finish setup and go to your configured content.

- Click "OK" to display the confirmation screen for input source switching.

Show the input list: You can check the current connection status of external equipment. Confirm which input terminal is connected to the set-top box.

OK: Clicking "OK" will complete the Easy Setup procedure.



- This may not display correctly depending on the connected equipment.
- This is not displayed correctly when the connected equipment is off.
- To watch TV using a set-top box, press **INPUT** after completing the initial settings, and select the input to which the set-top box is connected.

NOTE

- For changing the settings of the Initial Installation, perform "Easy Setup" on the Setup menu on page 4-13.

Direct Button Operation

Changing Channels

You can change channels in several ways.

Method 1

Using **CH**∧/∨ on the remote control unit or on the TV.

Method 2

Using remote control buttons **0**-**9**, • (DOT).

Examples:

To select a 1 or 2-digit channel number (e. g., Channel 5):

Press **5** → **ENTER**

To select a 3-digit channel number (e. g., Channel 115):

Press **1** → **1** → **5** → **ENTER**

To select a 4-digit channel number (e. g., Channel 22.1):

Press **2** → **2** → **• (DOT)** → **1** → **ENTER**

Method 3

Selecting the program from the Channel list.

1 Press **INPUT** on the remote control unit.
- The INPUT list displays.

2 Press ◀/▶ to select "AIR" or "CABLE".
- The Channel list displays.

3 Press ▲/▼ to select the desired channel, and then press **ENTER**.

NOTE

- When selecting a 1-digit channel number, it is not necessary to press **0** before the number.
- When you enter **0**-**9** only, channel selection will be made if there is no operation within a few seconds.
- If you push "0" by itself, nothing will happen.
- Complete the above steps within a few seconds.
- When you enter **0**-**9** and • (DOT), channel selection will be made if there is no operation within a few seconds.

Direct Button Operation

Changing Volume

You can change the volume by pressing **VOL+/-** on the TV or on the remote control unit.

- To increase the volume, press **VOL +**.
- To decrease the volume, press **VOL -**.

Audio status

Output device	Output Select	
	Fixed	Variable
Speaker	Variable sound	Mute

- When "Output Select" is set to "Variable", the indicator on the screen changes as shown below.

NOTE

- See page 4-20 for details on the Output Select function.

Direct Button Operation

MUTE

Mutes the current sound output.
Press **MUTE**.

- "⊗" will be displayed on the screen for 30 minutes, and the sound is silenced.

NOTE

- Within 30 minutes of pressing **MUTE**, mute can be canceled by pressing **VOL+/-** or **MUTE**.
- Mute will be canceled after 30 minutes have passed. However, the TV will not suddenly output a loud sound as the volume level is set to 0 automatically.

3D Surround

The surround function produces Surround effect from the speakers.

3D Stadium: Reproduces lifelike experience of excitements such that live sports or concert performances in a stadium create.

3D Hall: Reproduces concert hall experience with realistic live surround sound using measured reverberant sound in the concert hall.

3D Movie: Reproduces movie theater experience with realistic live surround sound using measured reverberant sound in the movie theater.

3D Standard: Creates 3 dimensional surround sound with detailed control of the signal phase.

Normal: Provides mild surround sound.

Off: Outputs the normal sound.

NOTE

- The Audio Settings menu is grayed out when "Output Select" is set to "Variable". (See page 4-20.)
- For some discs, setup may be required on your BD/DVD player. In this case, please refer to the operation manual of your BD/DVD player.
- This button doesn't operate when you are watching Home Network or SD/USB mode.

FREEZE

Allows you to capture and freeze a moving image that you are watching.
Press **FREEZE**.

- A moving image is captured.
- Press **FREEZE** again to cancel the function.

NOTE

- When this function is not available, "No displaying still image available." will display.
- The still image automatically goes out after 30 minutes.
- If you are using the freeze function and a broadcast activates the V-CHIP BLOCK, the freeze function will be canceled and a V-CHIP BLOCK message will appear.
- You can have the same settings by choosing "Freeze" on the menu items.
  (See page 4-28.)
- You cannot operate the "FREEZE" function during 4K signal input.
  Operate this function during the input of other types of signals(as Full HD).

FLASHBACK

Press **FLASHBACK** to switch to the previously tuned channel or previous input mode.

- Press **FLASHBACK** again to switch back to the currently tuned channel.

NOTE

- **FLASHBACK** will not work if no channel has been changed after the TV is turned on.

SmartCentral

Allows you to directly activate various types of applications.

1 Press **SmartCentral** to display the application window.
- Press **SmartCentral** again to display a list of applications by category.

2 Press ◀/▶(or ▲/▼) to select the desired application, and then press **ENTER**.
- If you changed the display to the list of applications in step 1, select a category and then an application. See pages 8-11 to 8-12 for details.
- If " " is displayed, check the USB connection.
- If " " or " " is displayed, check your TV's network settings and connection.

NOTE

- See page 5-2, 8-6 to 8-8 for details of viewable applications.
- You can display the application window by choosing "App Dock" on the menu items. (See page 4-28.)
- When this function is not available, "Can not operate this function now" will display.

NETFLIX

Displays the Netflix screen.

Press **NETFLIX**.

NOTE

If you press the NETFLIX button when the TV is turned off, the TV turns on and the NETFLIX screen is displayed.

- To enjoy Netflix, you need to make:

—a broadband Internet connection
(See page 8-1.)

—settings of Internet Setup
(See pages 8-2 to 8-4.)

—adjustments for Netflix
(See page 8-12.)

AUDIO

MTS/SAP stereo mode
The TV has a feature that allows reception of sound other than the main audio for the program. This feature is called Multi-channel Television Sound (MTS). The TV with MTS can receive mono sound, stereo sound and Secondary Audio Programs (SAP). The SAP feature allows a TV station to broadcast other information, which could be audio in another language or something completely different like weather information.

You can enjoy Hi-Fi stereo sound or SAP broadcasts where available.

- **Stereo broadcasts:** View programs like live sporting events, shows and concerts in dynamic stereo sound.
- **SAP broadcasts:** Receive TV broadcasts in either MAIN or SAP sound.
  MAIN sound: The normal program soundtrack (either in mono or stereo).
  SAP sound: Listen to a second language, supplementary commentary or other information. (SAP is mono sound.)

If stereo sound is difficult to hear.

- Obtain a clearer sound by manually switching to fixed mono-sound mode.

You can change MTS as shown below to match the television broadcast signal.
Press **AUDIO** to toggle between audio modes.

Examples: when receiving MTS and SAP

STEREO mode: ST(SAP) → SAP(ST) → MONO

STEREO + SAP mode: STEREO ⟷ MONO

MAIN + SAP mode: MAIN ⟷ SAP

MONO mode: MONO

Digital broadcasting audio mode
The types of audio transmitted in a digital broadcast include SURROUND as well as MONO and STEREO. In addition, it is possible for multiple audio tracks to accompany a single video track.
Press **AUDIO** to toggle between audio modes.

Example: when receiving Digital broadcasting

STEREO (Audio1) → STEREO (Audio2) → SURROUND (Audio3) →

NOTE

- MTS only operates while in TV mode.
- You can have the same settings by choosing "Change Audio" on the menu items.
  (See page 4-29.)

Sleep Timer

Allows you to set a time when the TV automatically switches to standby.
Press **SLEEP**.

- The remaining time displays when the sleep timer has been set.
- Each time you press **SLEEP**, the remaining time switches as shown below.

Off → 30 → 60 → 90 → 120

- When set, the time automatically starts counting down.
- If you want to adjust the sleep timer, you can press **SLEEP** twice then change the time setting.
- When it is 5 minutes before the time expires, the remaining time will start to keep appearing every minute.

NOTE

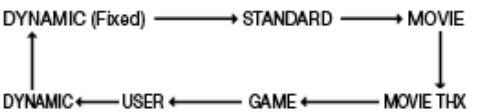
- Select "Off" by pressing **SLEEP** to cancel the sleep timer.
- The TV will enter standby when the remaining time reaches 0.

Direct Button Operation

AV MODE

AV MODE gives you several viewing options to choose from to best match the surrounding environment of the TV, which can vary due to factors like room brightness, type of program watched or the type of device connected.
You can use USER Mode to create customized settings for each TV input. These settings will be automatically saved on each input for convenience.
Press **AV MODE**. Current AV MODE displays.

- Press **AV MODE** again before the mode displayed on the screen disappears.
- The mode changes as shown below:
- **Example:**
  When using the COMPONENT IN/VIDEO IN terminal



- **Example:**
  When using the HDMI IN 1 to 4 terminals

AV MODE (Continue)

STANDARD: For a highly defined image in a normal lighting.

MOVIE: For a movie.

MOVIE THX: Changes the image quality so that it conforms to the THX display standard.

GAME: Lowers image brightness for easier viewing.

PC: For PC.

USER: Allows the user to customize settings as desired. You can set the mode for each input source.

DYNAMIC: For a clear-cut image emphasizing high contrast, useful for sports viewing.

DYNAMIC (Fixed): Changes the image and sound settings to the factory preset values. No adjustments are allowed.

NOTE

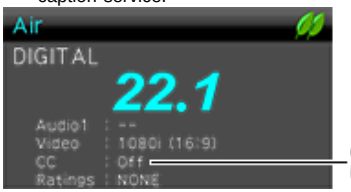
- You can select a different AV MODE item for each input mode. (For example, select STANDARD for TV input and DYNAMIC for COMPONENT.)
- When you play games, "GAME" is recommended for AV MODE.
- You cannot set "PC" when the TV is connected to the Internet.
- You cannot set "GAME" or "PC" when the input "Home Network" or "SD/SDHC/USB".
- You can have the same settings by choosing "AV MODE" on the menu items.
(See page 4-5.)

Closed Captions and Digital Closed Captions

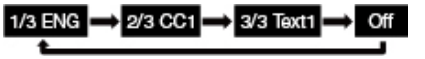
Your TV is equipped with an internal Closed Caption decoder. It allows you to view conversations, narration and sound effects as subtitles on your TV. Closed Captions are available on some TV programs and on some VHS home video tapes at the discretion of the program provider.
Digital Closed Caption service is a new caption service available only on digital TV programs (also at the discretion of the service provider). It is a more flexible system than the original Closed Caption system, because it allows for a variety of caption sizes and font styles. When the Digital Closed Caption service is in use, it will be indicated by the appearance of a 3-letter abbreviation that also indicates the language of the Digital Closed Captions: ENG (English), SPA (Spanish), FRA (French) or other language codes.
Not all programs and VHS videotapes offer closed captions. Please look for the "CC" symbol to ensure that captions will be shown.
In the Closed Caption system, there can be more than one caption service provided. Each is identified by its own number. The "CC1" and "CC2" services display subtitles of TV programs superimposed over the program's picture.
In the Closed Caption system, the "Text1" or "Text2" services display text that is unrelated to the program being viewed (e.g., weather or news). These services are also superimposed over the program currently being viewed.

1 Press **CC**.
- This will present the Closed Caption information display.

2 Press **CC** while the Closed Caption information is still on the screen.
- Press repeatedly until you select the desired closed caption service.



- Depending on the number of caption services in the signal being received, you will see information such as 1/2 or 1/4 displayed.
  1/2 means "the first of two services".
  Example:
  If a program has three services (Digital CC(ENG), CC1 and Text1), the closed caption display will toggle in this sequence:



- The **CC** button keeps a record of the last service selected in its memory.
  If the last closed caption mode (e.g. 1/3 ENG) you selected is not available for the next program, or on another channel, the closed caption service that is available is automatically selected, and this service appears in parentheses, e.g. "1/3(CC1)".
  Closed Caption services that appear in parentheses will not be stored in the **CC** button's memory as your last selected service. Only services that you have selected with the **CC** button are stored.

Closed Captions and Digital Closed Captions (Continue)

Examples:

In a case where there are two closed caption services provided (for instance, Digital CC(ENG) and CC1), and Digital CC(ENG) is displayed as your current selection, if Digital CC(ENG) is not broadcast for the next program, the other closed caption service, CC1, will be displayed in parentheses.

A closed caption service appears in parentheses because the service you selected is not available and a different service is displayed on your screen. "1/1(CC1)" is displayed instead of "1/2/ENG".

NOTE

- When "Power Saving" is set to "Standard" or "Advanced", the Power Saving leaf icon appears on the channel information window.
  See page 4-27 for details of Power Saving settings.
- See page 4-30 for detailed closed caption settings.
- When the program contains no closed caption, "--" displays in the closed caption information.
- If the language code, e.g. "ENG", is not found on Digital TV programs, "--" will be shown.
- Four kinds of closed caption service (CC1, CC2, Text1, Text2) are potentially available, but a broadcast may contain none or only some of these services at the discretion of the program provider.
- When a web page is displayed, Closed Captions are not available.
- You can have the same settings by choosing "Change CC" on the menu items.
  (See page 4-29.)

VIEW MODE

You can select the screen size.

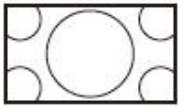
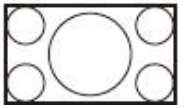
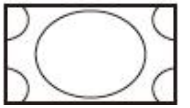
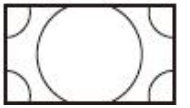
1 Press **VIEW MODE**.
- The View Mode menu displays.
- The menu lists the View Mode options selectable for the type of video signal currently being received.

2 Press **VIEW MODE** or ▲/▼ while the View Mode menu is displayed to select a desired item on the menu.
- You can sequentially select a View Mode that has its own aspect ratio.

NOTE

- You can have the same settings by choosing "View Mode" on the menu items. (See page 4-28.)

For HD programs

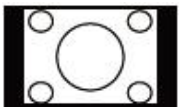
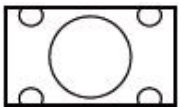
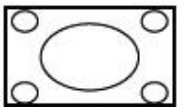
Stretch	Dot by Dot (Full Screen)	S.Stretch (Smart stretch)	Zoom
			
Suitable for viewing wide-screen 1.78:1 aspect ratio program, stretch mode will still show very thin black bands at the top and bottom of the screen.	"Dot by Dot" when the number of pixels on the screen and the resolution of the signal are the same. "Full Screen" when the number of pixels on the screen and the resolution of the signal are different. In either case, the image fully fills the screen.	Suitable for stretching 4:3 programs to fill the screen.	Suitable for viewing wide-screen 2.35:1 aspect-ratio programs in full screen.

NOTE

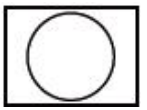
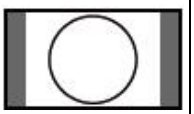
- When using Dot by Dot or Full Screen, it is possible to see noise or bars around different outer portions of the screen. Please change view mode to correct this.

VIEW MODE (Continue)

For 4:3 programs
Example: Screen size images

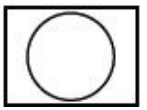
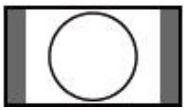
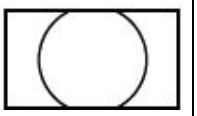
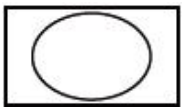
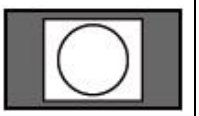
Side Bar	S.Stretch (Smart stretch)	Zoom	Stretch
			
Suitable for viewing conventional 4:3 programs in their normal format.	Suitable for stretching 4:3 programs to fill the screen.	Suitable for viewing wide-screen 2.35:1 anamorphic DVDs in full screen.	This mode is useful for 1.78:1 DVDs. When viewing 1.85:1 DVDs, stretch mode will still show very thin black bands at the top and bottom of the screen.

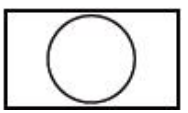
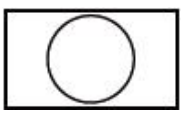
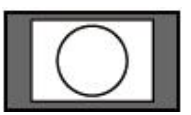
For USB-Video, SD-Video, Home Network Video or Internet applications
Example: Screen size images

Input signal	
	 Keeps the original aspect ratio in a full screen display.

VIEW MODE (Continue)

For PC
Example: Screen size images

Input signal	Normal	Zoom	Stretch	Dot by Dot
 4:3	 Keeps the original aspect ratio in a full screen display.	 For viewing widescreen programs. The top and bottom of the image is cropped.	 An image fully fills the screen.	 Detects the resolution of the signal and displays an image with the same number of pixels on the screen.

Input signal	Stretch	Dot by Dot
 16:9	 An image fully fills the screen.	 Detects the resolution of the signal and displays an image with the same number of pixels on the screen.

NOTE

- Connect the PC before making adjustments. See the Setup Guide.
- Selectable screen size may vary with input signal type.

On-Screen Display Menu

Introduction

LCFONT embedded

①Guide display
- This indicates the buttons that can be operated on the displayed screen. The guide display varies depending on the menu setting screen.
- The operations for some selected items may be displayed in the operational guide bar at the bottom of the screen.

② Item displayed in blue
- This indicates the item currently selected.
- Press **ENTER** to go to the adjustment screen for this item.

③ Item in brackets
- This indicates the current setting for the item.

④ Item displayed in white
- This indicates that the item can be selected.

Introduction (Continue)

About Menu Items

- Some menu items may not be displayed depending on the selected input source.

NOTE

- The screens in the operation manual are for explanation purposes (some are enlarged, others cropped) and may vary slightly from the actual screens.
- The order of explanations for each menu item in the following pages is not necessarily in accordance with the alignment of the items on the screen.

LCFONT:

- This product is embedded with LC Font technology, which was developed by SHARP Corporation for clearly displaying easy-to-read characters on LCD screens.

On-Screen Display Menu Operation

Example

1 Press **MENU** to display the MENU screen.

2 ①Press ◄/► to select the desired menu.

②Press ▲/▼ to select a specific adjustment item, and then press **ENTER**.

- Additional related adjustment items may be displayed. Press ▲/▼ to select the desired item.

③ Adjust the item while referring to the guide display.

- Operations vary depending on the function or item. Refer to the guide display corresponding to the menu setting screen for button operations.

3 Press **MENU** to exit.

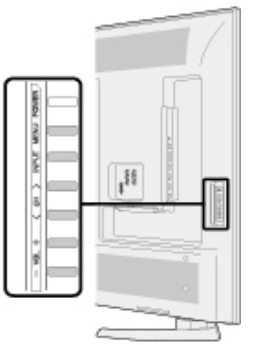
NOTE

- Menu options differ in the selected input modes, but the operating procedures are the same.

Menu Operation Buttons

Using the remote control
Use the following buttons on the remote control to operate the menu.
MENU: Press to open or close the menu screen.
▲/▼/◄/►: Press to select a desired item on the screen or adjust a selected item.
ENTER: Press to go to the next step or complete the setting.
RETURN: Press to return to the previous step.

Using the control panel of the TV
You can also operate the menu with the control panel of the TV.
Button operations on the control panel correspond to the ones on the remote control as shown below.



MENU: MENU on the remote control.
INPUT: ENTER on the remote control.
CH∧/∨: Cursor **▲/▼** on the remote control.
VOL+/-: Cursor **◄/►** on the remote control.

Example

Picture Settings

Adjusts the picture to your preference with the following picture settings.

NOTE

- For operating the on-screen display menu, see page 4-3.

Selected item	◄ button	► button
Backlight	The screen dims	The screen brightens
Contrast	For less contrast	For more contrast
Brightness	For less brightness	For more brightness
Color	For less color intensity	For more color intensity
Tint	Skin tones become reddish	Skin tones become greenish
Sharpness	For less sharpness	For more sharpness

- For resetting all Picture adjustment items to the factory preset values, press ▲/▼ to select "Reset", press **ENTER**, press ▲/▼ to select "Yes", and then press **ENTER**

AV MODE (Changing Pic.Quality)

The audio and video settings can be changed to suit the program or input content being watched.

NOTE

- The selectable items vary depending on the input source and on the model of your TV.
- You can select AV MODE by pressing **AV MODE** on the remote control unit.
  See page 3-10 for details of AV MODE settings.

Example

Picture Settings (Continue)

THX Setup

Adjust the picture to room illumination or ambient brightness. This function is available only when AV MODE is set to "MOVIE THX".

Bright room: Select this item for a bright room.

Dark room: Select this item for a dark room.

Automatic Light Sensor(Light Sensor)

Automatically adjusts the brightness of the screen.

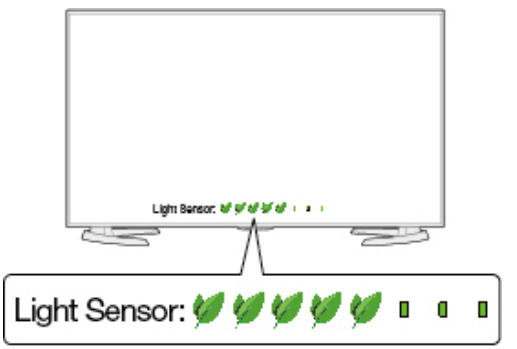
Off: The brightness is fixed at the value set in "Backlight".

On: Automatically adjusts.

On:Display: Displays the Light Sensor effect on the screen while adjusting the brightness of the screen.

NOTE

- When set to "On", the Light Sensor senses the surrounding light and automatically adjusts the backlight brightness. Make sure nothing obstructs the Light Sensor, which could affect its ability to sense surrounding light.
- When set to "On:Display", Light Sensor effect displays on the screen while the Light Sensor adjusts the screen brightness.



Example

Picture Settings (Continue)

Advanced

Resolution

This function adjusts the fineness of image for each portion.

Detail/**Narrow edge**/**Wide edge**: The fineness can be adjusted in the range of 0 to +10.

NOTE

- "Resolution" is not available when you set AV MODE to "PC.

Motion Enhancement

Use Motion Enhancement to view fast-action video more clearly.

Selected item	Description
AquoMotion480	Turn the LED backlight on or off for 120Hz drive display.
120Hz High	For obtaining a clearer image.
120Hz Low	
Off	Original image.

NOTE

- "Motion Enhancement" may cause image noise. If this occurs, turn the function "Off".
- When AV MODE is set to "GAME" or "PC", or PC format is being input, "Motion Enhancement" is not available.

Multi Pixel Drive

Set this function when two or more people are going to watch a TV program or when you are viewing the screen obliquely.

On: For wider viewing angle.

Off: Normally choose this.

AquoDimming

Fine brightness control can be used to adjust the contrast between the light and shadow of the image.

High/Middle/Low/Off

NOTE

- This function cannot be used during 4K signal input.

Example

Picture Settings (Continue)

Advanced

C.M.S. (Color Management System)

Color tone is managed using the six-color adjustment setting.

C.M.S.-Hue: This is a standard to adjust the color either more reddish or more bluish in tone.

C.M.S.-Saturation: Increases or decreases the saturation of a selected color.

C.M.S.-Value: A higher value makes the image brighter.

A lower value makes the image darker.

NOTE

- For resetting all adjustment items to the factory preset values, press ▲/▼ to select "Reset", and then press **ENTER**.

Color Temp. (Color Temperature)

For a better white balance, use color temperature correction.

High: White with bluish tone
Mid-High:
Middle:
Mid-Low:
Low: White with reddish tone

White balance can be adjusted between a maximum of +30 and a minimum of –30 for each color temperature.

R Gain (LO/HI)/G Gain (LO/HI)/B Gain (LO/HI)

Fine tuning the color temperature

To fine tune the color temperature, set "10 Point Setting" to "On".
You can adjust the "Position" setting. Adjust the set color temperature from +1 to +10.
White balance can be adjusted between a maximum of +30 and a minimum of –30 for each color temperature.

NOTE

- When "Position" is set to "10", you can adjust the white balance between –30 and 0.
- For resetting all adjustment items to the factory preset values, press ▲/▼ to select "Reset", and then press **ENTER**.

Example

Picture Settings (Continue)

Advanced

Gamma Adjustment

Adjusts the differences of picture tones between bright parts and dark parts. The adjustment range of the gamma can be set to a maximum of +3 and a minimum of –3 by pressing ◄ or ►.

Film Mode (3:2 pull-down)

This function provides high-quality playback of images originally encoded at 24 frames/second, such as films.

Advanced (High): Provides smoother image motion while ensuring high-quality playback.

Advanced (Low): Adjusts effect to reduce judder from film contents.

Standard: Plays back images with equal display time for each frame, reproducing movie theater experience.

Off: Normal viewing mode.

NOTE

- "Film Mode" does not function depending on input signal type.
- "Film Mode" does not function when you set AV MODE to "GAME" or "PC".
- "Standard" does not function depending on input signal type.

Digital Noise Reduction

Produces a clearer video image.

High/Middle/Low: You can select a desired level for viewing a clearer video image.

Off: No adjustment.

NOTE

- "Digital Noise Reduction" is not available when you set AV MODE to "PC" or PC format is being input.

Example

Picture Settings (Continue)

Advanced

Monochrome

For viewing a video in monochrome.

Black Level

Adjusts on-screen black level to your preferred level.

High: The black level gets brighter.

Low: The black level gets darker.

NOTE

- "Black Level" is available for input signal from Composite Video, Component 480i and analog broadcasts (air and cable).

Light Sensor Adjustment

The brightness level range of the Light Sensor's automatic adjustments can be set according to your preferences. The adjustment range of the Light Sensor can be set to a maximum of +16 and a minimum of –16.

Max.: –16 through +16

Min.: –16 through +16

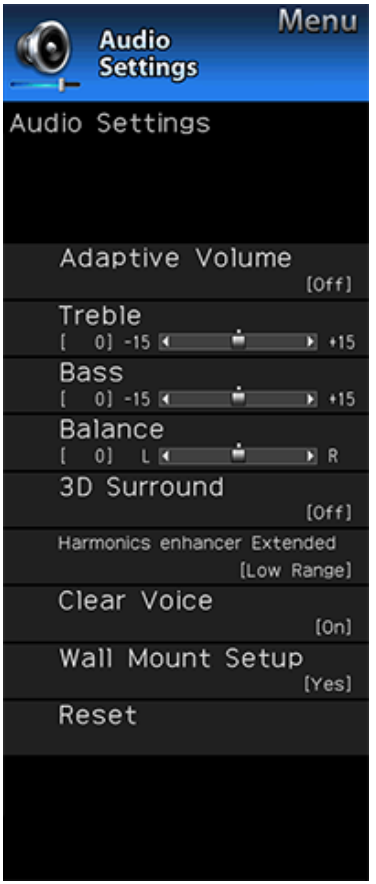
NOTE

- The "Light Sensor Adjustment" settings are active only when "Automatic Light Sensor" is set to "On".
- The maximum setting cannot be set to a smaller number than the minimum setting.
- The minimum setting cannot be set to a bigger number than the maximum setting.
- Depending on the brightness of the surrounding light, the Light Sensor might not operate if the adjustment range is small.

Reset

Returns Picture Settings to their factory preset values. To reset, select "YES" and then press **ENTER**.

Example



Audio Settings

You can adjust the sound quality to your preference with the following settings.

NOTE

- For operating the on-screen display menu, see page 4-3.

Selected item	◄ button	► button
Treble	For weaker treble	For stronger treble
Bass	For weaker bass	For stronger bass
Balance	Decrease audio from the right speaker	Decrease audio from the left speaker

NOTE

- The Audio menu is grayed out when "Output Select" is set to "Variable". (See page 4-20.)
- For resetting Audio adjustment items to the factory preset values, press ▲/▼ to select "Reset", press **ENTER**, press ▲/▼ to select "Yes", and then press **ENTER**.

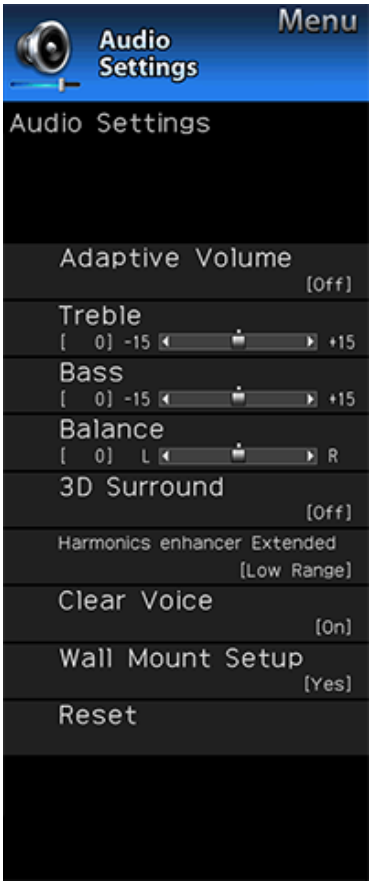
Adaptive Volume

Different sound sources sometimes do not have the same loudness level, such as a program and its commercial brakes, The Automatic Volume Control(Auto Volume) reduces this problem by equalizing.

ON: Reduces the loudness gaps among different sound source. The result is automatically adjusted according to the sound sources.

OFF: No adjustment.

Example



Audio Settings (Continue)

3D Surround

The surround function produces Surround effect from the speakers.

3D Stadium: Reproduces lifelike experience of excitements such that live sports or concert performances in a stadium create.

3D Hall: Reproduces concert hall experience with realistic live surround sound using measured reverberant sound in the concert hall.

3D Movie: Reproduces movie theater experience with realistic live surround sound using measured reverberant sound in the movie theater.

3D Standard: Creates 3 dimensional surround sound with detailed control of the signal phase.

Normal: Provides mild surround sound.

Off: Outputs the normal sound.

NOTE

- The Audio Settings menu is grayed out when "Output Select" is set to "Variable". (See page 4-20.)
- For some discs, setup may be required on your BD/DVD player. In this case, please refer to the operation manual of your BD/DVD player.

Harmonics Enhancer Extended

This function improves the sound quality by extending the selected range.

All Range: The low range will be extended and the sounds in the medium and high ranges, which have been lost due to the data being compressed, will be restored. This setting is effective when playing back audio through a wireless interface such as when using Bluetooth playback.

Low Range: The low range will be extended.

Off: No adjustment.

Clear Voice

This function emphasizes speech against background noise for greater clarity.

NOTE

- The Audio Settings menu is grayed out when "Output Select" is set to "Variable". (See page 4-20.)

Wall Mount Setup

This selects the optimal audio for the program you are currently watching even when the TV is mounted to a wall.

Reset

Returns Audio Settings to their factory preset values. To reset, select "YES" and then press **ENTER**.

Example

Setup

NOTE

- For operating the on-screen display menu, see page 4-3.
- When you select "Easy Setup", "CH Setup", "Parental Control" or "Reset", you can enter the 4-digit secret number here.
  See page 4-21 for setting a secret number.

Language

You can also select a language from the Setup menu. Select from among 3 languages: English, French and Spanish.

NOTE

- To change the language of the manual, select "MENU" > "Setup" > "Language" to change the language. Then, press **MANUAL** again.

Easy Setup

You can run Easy Setup again, even after setting up the preset channels.

Language: Select from among 3 languages (English, French and Spanish).

Location & Time: Make settings for the country, area and time zone where you use the TV.

Select your country: Select either "United States", "Canada" or "Mexico".

Select your time zone: Select your time zone. The available settings differ depending on the selected country.

Select DST (Daylight Savings Time): Select "Auto", "Manual" or "Off".

TV Location: Select "Home" or "Store" for the location where you plan to install the TV.

Home: "Power Saving" is set to "Advanced", and AV MODE is set to "STANDARD".

Store: "Power Saving" is set to "Off" and AV MODE is set to "DYNAMIC (Fixed)". Picture Reset and Feature Demo can be set.

Picture Reset: AV MODE will be set to "DYNAMIC (Fixed)" regardless of whether Picture Reset is "On" or "Off". If you select "On", AV MODE will be reset to "DYNAMIC (Fixed)" if there is no operation for 30 minutes. When "Off" is selected, even after 30 minutes elapses, AV MODE is not reset to "DYNAMIC (Fixed)".

Example

Setup (Continue)

Easy Setup

Feature Demo: When "On" is selected, after all the settings are completed, the Feature Demo screen is displayed if there is no operation for several minutes.

Antenna & Cable/STB: Select the type of connection you will use to watch TV.

Air/Cable: Make sure what kind of connection is made with your TV when selecting "Air" or "Cable".

CH Search: Channel auto search makes the TV look for all channels viewable in the set area.

- If "Cable" is selected for Antenna setting, scrambled channels are removed after the Channel search has been completed.

Smart TV: When you connect to the Internet on the TV, confirm the connection method and make adjustments.

- Wireless LAN connection is possible only when the WPS (push button) method is used. If any other method is used, make settings by Smart TV > Internet Setup > Internet Connection. (See pages 8-2 to 8-4.)

Completed: The settings confirmation screen is displayed. Confirm the information displayed on the screen.

NOTE

- See Initial Installation on pages 2-2 to 2-7 for setting each item.
- If no channel is found, confirm the type of connection made with your TV and try "Easy Setup" again.
- If you select "Analog Search Start" and initiate the channel search, the CH Memory for Cable Digital will be deleted.

TV Channel Setup

CH Setup

If Initial Installation does not memorize all the channels in your region, follow the instructions below to manually memorize the channels.

Air/Cable: Make sure what kind of connection is made with your TV when selecting "Air" or "Cable".

CH Search: Channel auto search makes the TV look for all channels viewable in the set area.

CH Memory: You can select the channels to skip in each ANALOG (Air), ANALOG (Cable), DIGITAL (Air) and DIGITAL (Cable).

On: Skips channels. (Channel selection disabled using **CH** ∧∨.)

Off: Does not skip channels. (Channel selection enabled using **CH**∧∨.)

Remove Scrambled CH: This function makes the TV look for and then delete digital cable channels that are scrambled and so unavailable in the set area. The process may take more than 20 minutes.

Yes: Starts to remove scrambled channels.

No: This function does not work.

NOTE

- See Initial Installation on pages 2-2 to 2-7 for setting each item.
- If no channel is found, confirm the type of connection made with your TV and try channel search again.
- If you select "Analog Search Start" and initiate the channel search, the CH Memory for Cable Digital will be deleted.

Example

Setup (Continue)

TV Channel Setup

Favorite CH (Favorite Channel Setting)

This function allows you to program 4 favorite channels, in 4 different categories. By setting the favorite channels in advance, you can select your favorite channels easily.

To register your favorite channel:

Select "Register" and then press **ENTER**. Press ▲/▼/◄/► to select the position in the category, and then press **ENTER** to register.

To delete your favorite channel:

Select "1 Data Clear" and then press **ENTER**. Press ▲/▼/◄/► to select the channel you want to delete, and then press **ENTER**. Select "Yes" and then press **ENTER**.

To delete all the favorite channels, select "All Data Clear".

NOTE

- Before setting the channel, select the channel you want to register as a favorite channel.
- You can display the "Favorite CH" screen by pressing **FAVORITE CH** on the remote control.

Antenna Setup-DIGITAL

In order to receive digital air broadcasts, you need a digital broadcast antenna. You can confirm the antenna configuration through the "Antenna Setup-DIGITAL" screen. If necessary, adjust the direction of the antenna to obtain the maximum signal strength.

Signal Strength: The signal strength of DIGITAL channel is displayed. The signal information is based on the current channel.

Channel Strength: Input the 2-digit channel number to check the signal strength of the selected channel. Make sure the signal is strong enough for each channel.

- This function is available for DIGITAL (Air) only.

Example

Setup (Continue)

Parental Control (Parental Control Setting)

V-Chip

V-CHIP is an electronic filtering device built into your TV. This tool gives parents a great degree of control over broadcasts accessed by their children. It allows parents to select programs judged suitable for child viewing while blocking ones judged not suitable. It does so automatically once you activate the V-CHIP feature in your TV. "V-Chip" and "Status" will not be selectable from the menu if you do not first configure your secret number.

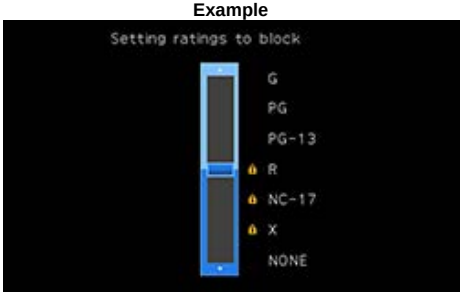
- The U.S. has two rating systems for viewing content: TV Parental Guidelines and movie ratings.
- The TV Parental Guidelines work in conjunction with the V-CHIP to help parents screen out inappropriate television shows from their children.
- Movie ratings are used for original movies rated by the Motion Picture Association of America (MPAA) as watched on cable TV and not edited for television. The V-CHIP can also be set to block MPAA-rated movies.

NOTE

- The setting automatically enters "Block" for any ratings below your selection.
- If Status is not set to "On", the configuration settings will not work.

MPAA (Voluntary movie rating system)

Example



Press ▲/▼ to adjust the item to your desired position.
"🔒" indicates the item is blocked. Press **MENU** to exit.
G: General audiences. All ages admitted.
PG: Parental guidance suggested. Some material may not be suitable for children.
PG-13: Parents strongly cautioned. Some material may be inappropriate for children under 13.
R: Restricted. Under 17 requires accompanying parent or adult guardian (age varies in some jurisdictions).
NC-17: No one 17 and under admitted.
X: X is an older rating that is unified with NC-17 but may be encoded in the data of older movies.

NOTE

- Voluntary movie rating system only uses an age-based rating.

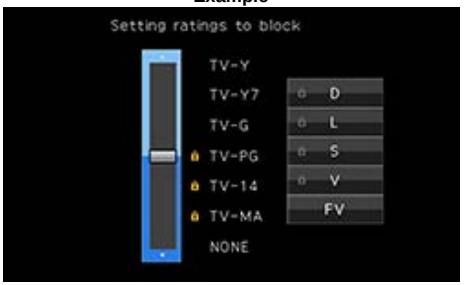
Example

Setup (Continue)

Parental Control
(Parental Control Setting)

TV Parental Guidelines

Example



Suggested age
TV-Y: All children.
TV-Y7: Directed to older children.
TV-G: General audience.
TV-PG: Parental Guidance suggested.
TV-14: Parents strongly cautioned.
TV-MA: Mature audience only.

When setting an individual content-based rating item:

1 Press ► or **ENTER** to access blocked content items from the currently selected age-based rating item.

2 Press ▲/▼ to select an individual item, and then press **ENTER** to unblock it ("🔒" is removed). Repeat the same steps for the other items.

3 Press ◄ or **RETURN** to register after all individual content rating items are set.

Content
FV: Fantasy violence.
V: Violence.
S: Sexual situation.
L: Adult language.
D: Sexually suggestive dialog.

Rating		Content				
		FV	V	S	L	D
Suggested age	TV-Y	☒	☒	☒	☒	☒
	TV-Y7	✕	☒	☒	☒	☒
	TV-G		☒	☒	☒	☒
	TV-PG		✕	✕	✕	✕
	TV-14		✕	✕	✕	✕
	TV-MA		✕	✕	✕	

☒: The content rating can be set, but this rating is not normally broadcast by TV stations.

✕: Content rating can be set.

Canadian Rating Systems (Canadian English ratings and Canadian French ratings)

- The TV rating systems in Canada are based on the Canadian Radio-Television and Telecommunications Commission (CRTC) policy on violence in television programming.
- While violence is the most important content element to be rated, the structure developed takes into consideration other program content like language, nudity, sexuality and mature themes.
- When setting the V-CHIP on the Canadian system you can choose either the Canadian English ratings or the Canadian French ratings.

Example

Setup (Continue)

Parental Control
(Parental Control Setting)

Canadian English Ratings

E: Exempt: Includes news, sports, documentaries and other information programming; talk shows, music videos, and variety programming.

C: Children: Intended for younger children under the age of 8 years. Pays careful attention to themes that could threaten their sense of security and well-being.

C8+: Children over 8 years old: Contains no portrayal of violence as the preferred, acceptable, or only way to resolve conflict; nor encourage children to imitate dangerous acts which they may see on the screen.

G: General: Considered acceptable for all age groups. Appropriate viewing for the entire family, contains very little violence, physical, verbal or emotional.

PG: Parental Guidance: Intended for a general audience, but may not be suitable for younger children (under the age of 8) because it could contain controversial themes or issues.

14+: Over 14 years: Could contain themes where violence is one of the dominant elements of the storyline, but it must be integral to the development of plot or character. Language usage could be profane and nudity present within the context of the theme.

18+: Adults: Intended for viewers 18 years and older and might contain depictions of violence, which while related to the development of plot, character or themes, are intended for adult viewing. Could contain graphic language and portrayals of sex and nudity.

Canadian French Ratings

E: Exempt programming.

G: General: All ages and children, contains minimal direct violence, but may be integrated into the plot in a humorous or unrealistic manner.

8ans+: General but inadvisable for young children: May be viewed by a wide public audience, but could contain scenes disturbing to children under 8 who cannot distinguish between imaginary and real situations.

Recommended for viewing with parent.

13ans+: Over 13 years: Could contain scenes of frequent violent scenes and therefore recommended for viewing with parent.

16ans+: Over 16 years: Could contain frequent violent scenes and intense violence.

18ans+: Over 18 years: Only for adult viewing. Could contain frequent violent scenes and extreme violence.

How to temporarily release the V-CHIP BLOCK
When the V-CHIP BLOCK is working and censors a broadcast, "V-CHIP HAS BEEN ACTIVATED." displays.

1 Press **ENTER** while the V-CHIP is working, and then the secret number setting menu displays.

2 Input the 4-digit secret number by using **0–9**. At this time V-CHIP BLOCK temporarily releases.

Example

Setup (Continue)

Parental Control (Parental Control Setting)

IMPORTANT:
Three conditions must be met to enable the V-Chip (see pages 4-16 to 4-19):

1. Secret No. is registered.
2. V-Chip/V-Chip (DTV Only) settings have been made.
   - The "V-Chip (DTV Only)" will only be selectable when a new rating system can be downloaded via digital broadcasting in the U.S.
3. "Status" is set to "On".

Reactivating the temporarily released V-CHIP BLOCK
You can reactivate the temporarily released V-CHIP BLOCK as shown below.

- Select "Status" setting from the Parental Control menu to reactivate BLOCK.
- Select "V-Chip" setting ("MPAA", "TV Guidelines", "Can. English Ratings" or "Can. French Ratings") from the Parental Control to reactivate BLOCK. (See pages 4-16 to 4-18.)
- Switch off the TV power.

NOTE

- Performing any of the three above will activate the V-CHIP BLOCK.

Status

Used to enable or disable the parental control function. This function will not be selectable from the menu if you do not first configure your secret number.

Quick Start Mode

When this function is activated, you can reduce the TV's start-up time or even let the TV in standby mode start displaying images and so on via the connected equipment on the network.

NOTE

- Setting "Quick Start Mode" to "On" consumes more power.

Input Settings

HDMI Setup - Auto View

When you view images sent from external equipment in an HDMI connection, this function allows the image size on the TV to automatically switch to an appropriate one.

NOTE

- Refer to your external equipment operation manual for the signal type.

COMPONENT/VIDEO Select

For image input applied to the COMPONENT IN or VIDEO IN terminal, switch to “Component” or “Video”, respectively.

AUTO: Auto select signal based on fixed priority.

Component: Select component video.

Video: Select composite video.

NOTE

- If no (color) image displays, try changing to another signal type.
- Check the operation manual of the external equipment for the signal type.
- When the signal type is set to “Auto”, the input terminal where a cable is connected is automatically selected.
- When the signal type is set to “Auto” and multiple video signal cables are connected, "Video" will be selected.

Custom Input Label

Lets you set the input terminal displayed when using the INPUT list or channel display. Press ▲/▼/◄/► to select the new name for the input mode.

- Using the software keyboard, you can enter up to 10 characters for text. (See page 4-26.)

NOTE

- You cannot change labels if the input source is TV, Home Network, Screen Sharing, Bluetooth or SD/SDHC/USB.

Example

Setup (Continue)

Input Settings

Input Skip

This setting allows you to skip the TV, HDMI Input ("TV", "HDMI 1", "HDMI 2", "HDMI 3" and "HDMI 4") on the Input Selection operation.

NOTE

- If you connect external equipment to an HDMI IN terminal which you have set to be skipped, a notification message appears on the display when a signal is received from the connected external equipment. Press "Yes" to reset the related skipping setting so that the input terminal becomes available.

Advanced

Audio Setup

You can output digital audio to an AV amplifier or similar device whose DIGITAL AUDIO INPUT terminal is connected to the DIGITAL AUDIO OUT terminal on the TV. Please select an audio output format compatible with the audio format of the program you are watching and the equipment connected.

PCM: For connecting to equipment that does not support Dolby Digital. The same audio (main, sub, or main/sub) as the audio of the program being viewed is output.

2-channel audio with a sampling rate of 48 kHz or less is output as linear PCM audio.

Bitstream: For connecting to an audio system that supports Dolby Digital. Audio is output through both the main and sub channels.

NOTE

- Analog channel audio and video input audio are output in PCM mode even when "Bitstream" is selected.
- PCM digital input signals are output in PCM mode even when "Bitstream" is selected.

Audio Select

This function sets the terminal to output the computer audio. The adjustment items vary depending on the input source. Select the input source corresponding to the terminal connected to the PC and then adjust the desired item.
To perform the operation, refer to "Setup" > "Advanced" > "Audio Select".
(See page 7-1.)

NOTE

- "Audio Select" can only be set for the HDMI IN 3.

Output Select

Allows you to select what controls the audio output.

Fixed: Sound via speaker is adjusted with **VOL+/-** on the remote control unit or on the TV.

Sound via the AUDIO OUT terminal is not adjustable and outputs at a consistent level.

Variable: Sound via the AUDIO OUT terminal is adjusted with **VOL+/-** on the remote control unit or on the TV.

Sound via speaker is muted.

Example

Setup (Continue)

Advanced

AQUOS LINK Setup

Make the settings to use AQUOS LINK.
Set the settings with "Setup" > "Advanced" > "AQUOS LINK Setup".
(See page 6-2.)

Secret No.

Allows you to use a secret number to protect certain settings from being accidentally changed.

Setting Secret No.
You can set and change the secret number by using **0**-**9**.

Yes: Changes or sets the Secret No.

No: The confirmation screen to clear the Secret No. appears when the Secret No. has been set. When the Secret No. has not been set, the previous screen will be displayed.

Delete Secret No.
You can clear your secret number.

Yes: Your secret number is cleared.

No: Your secret number is not cleared.

NOTE

- As a precautionary measure, make a note of your secret number and keep it in a familiar place.
- If the secret number is cleared, the Status setting automatically sets to "Off". "V-Chip" and "Status" will not be selectable from the menu.

Reset

If complex adjustments are made and the settings cannot be restored to normal, you can reset the settings to the factory preset values.

- If you have already set the Secret No., input the 4-digit secret number here.

NOTE

- The Channel Setup settings will not be changed.
- The Language settings will not be changed.
- The Secret number settings will not be changed.
- The TV Location settings will not be changed.

Example

Smart TV

Dashboard

You can display a list of the main Smart TV settings.

Internet Setup

Configures LAN and Internet settings.

Internet Connection

You can connect your TV to the Internet using the setting item "Internet Connection".
(See page 8-2 to 8-4.)

Interactive Service

If you do not want other people to connect to the Internet in your absence, you can make settings to keep the TV away from the Internet.
(See page 8-4.)

SmartCentral Settings

Switch to the SmartCentral Settings screen.

AQUOS Remote Control

Set this function when operating the TV from equipment connected by LAN or wireless LAN.
(See page 7-2.)

Example

Smart TV (Continue)

Wallpaper

Activating the function will display still images when the TV is in standby mode.

Wallpaper Mode

Configures Wallpaper Mode settings.

Off: Nothing will be displayed.

Picture: Still images will be displayed when the TV is in standby mode.

Clock: The clock will be displayed when the TV is in standby mode.
Configure the clock settings.

NOTE

- The clock mode can only be used when a network connection has been established.
  Finish configuring the network settings.
- After you set the time once, the clock will continue to operate even if you disconnect from the network. However, you cannot switch the daylight saving time setting when disconnected from the network.

Data Source

For the wallpaper, you can select either the still images pre-installed in the TV or your favorite still images stored in the USB memory device or SD memory card.

Pre-Installed: The images pre-installed in the TV will be displayed in a slideshow.

SD/SDHC/USB: Your favorite images stored for the wallpaper will appear.
If only a single still image is stored in the USB memory device or SD memory card, that image will be displayed as the wallpaper. When there are multiple still images in the memory, all the images will be displayed in a slideshow.

NOTE

- Images are displayed in 3-minute intervals as a slideshow.
- When the TV is in Wallpaper mode, you can turn off the TV by pressing and holding **POWER** on the TV for 5 seconds.
  - Just before the TV turns off, the last image shown when the TV was turned off appears briefly.
  - Your settings may not be saved in some cases.

When you display images by using the USB memory device or SD memory card:

- Create a folder named "WP" in the root directory of the USB memory device or SD memory card (the first directory when the USB memory device or SD memory card is opened), and store into the folder the still images you want to display for the wallpaper.
- You must insert the USB memory device or SD memory card to the TV before turning off the TV.
- If there are images on the USB memory device or SD memory card but they do not appear on the screen, switch to SD/USB mode and check whether the image files on the USB memory device or SD memory card are shown correctly.

Timer Setting

You can set the length of time the TV will remain in the Wallpaper Mode.

3 hours/6 hours/12 hours/24 hours

NOTE

- No buttons except for **POWER** work even while the still images are being displayed.
- If the ready-for-use USB memory device or SD memory card is not inserted, the still images pre-installed in the TV will be displayed in a slideshow even when "Data Source" is set to "SD/SDHC/USB".
- Because the USB memory device or SD memory card cannot be detected immediately after the TV is turned on from standby mode, the wallpaper pre-installed in the TV may be displayed even when "Data Source" is set to "SD/SDHC/USB".
- The still images will be displayed until the set time has elapsed.

Clock

Configures clock settings.
Set the type of clock to use in wallpaper mode.

Spring/Summer/Fall/Winter: A clock that represents the corresponding season will be displayed.

Random: A randomly selected clock from among the four types will be displayed.

Example

Smart TV (Continue)

Bluetooth

Set this function when using the bluetooth devices with your TV.
See page 8-10,9-1 for how to use the devices.

NOTE

- When you use the Bluetooth device with your TV for the first time, you must make pairing between the device and the TV. Once the pairing is correctly carried out, the Bluetooth device will be registered on the TV.

Keyboard Setting/Mouse Setting/Other devices Setting

You can add, delete or select Bluetooth devices in the registration.

Addition of a Bluetooth Device

Before making the settings, press the Connect button on the Bluetooth device you want to connect.

1 Press ◄/► to select "Search", and then press **ENTER**.
2 Model names of the detected devices will be displayed. Select the device with the message "New" attached, and then press **ENTER**.
   - When a keyboard is being paired with the TV, a PIN code will be displayed. Enter the PIN code using the keyboard, and then press "Enter" key on the keyboard.
   - When you perform pairing operation on a mouse, select "Yes", and then press **ENTER**.
3 After the message indicating the pairing is complete has been displayed, click "OK".

Deletion of a Bluetooth Device

1 Press ▲/▼ to select the device to delete, and then press **ENTER**.
2 Press ▲/▼ to select "Delete", and then press **ENTER**.

Selection of a Bluetooth Device

1 Press ▲/▼ to select the device to use, and then press **ENTER**.
2 Press ▲/▼ to select "Select", and then press **ENTER**.

NOTE

- See also the instruction manual supplied with the Bluetooth device.
- You can register up to 6 devices to the TV, but only one keyboard and mouse can be used at a time.
- If a device for which "Selected" is displayed does not operate properly, try searching and selecting the device again.
- The keyboard or mouse may not operate properly depending on the application being used.
- The Bluetooth device may not operate properly depending on the device being used.

Other Devices Setting

- Though up to six devices (smartphones) can be registered, only one can be used at a time.
- Repairing is required whenever you change the device being used.
- To have TV power turn on automatically when a playback signal is received from a paired device while TV power is off, set “Quick Start Mode” to “ON”.

Example

Smart TV (Continue)

Miracast Screen Sharing

Connection Mode Setting

Configures Connection Mode settings.

PUSH Button Mode: The push button method will be used to establish connections.

PIN Code Mode: the PIN code method will be used to establish connections.

Wireless Channel Setting

Set preferred wireless channel for Miracast Connection

NOTE

- You cannot operate the "Miracast Screen Sharing" function during "Screen Sharing" input. Operate this function during the input of other types.
- Depending on the connected device, different channels may be assigned.
- You can use the Wireless Channel setting to specify the preferred channel. Select "Auto" to select the optimum channel for the usage conditions.

Home Network

Make the settings for remote playback.
(See page 5-13.)

Example

Smart TV (Continue)

Advanced

SmartCentral Sounds

You can setting the volume of the SmartCentral sounds.
High/Medium/Low/Off: Setting the volume of SmartCentral sounds

NOTE

- If an external speaker is used, the operation sound will not be heard.
- This setting is only valid in SmartCentral.

TV Name Setting

Set this function when operating the TV from equipment connected by LAN or wireless LAN.
(See page 7-2.)

To move the cursor (the current input position), use "<=" or "=>" on the software keyboard.

AQUOS
! 1 2 3 4 5 6 7 8 9 0 - = Back space
@ q w e r t y u i o p [ ] Delete
Caps off a s d f g h j k l : " Enter
Shift z x c v b n m , . / ? Shift
< Sign > .com <= Space => Clear
A --- B --- C --- D Space EXIT Quit

While you are entering text, likely input conversion candidates are displayed based on what you typed in.
Caps Off/Caps Lock
If "alphabet" is selected, this switches characters between uppercase and lowercase.
Each time you press **ENTER**, the character type switches as shown below:
Caps Off: all the characters are lowercased
Caps Lock: all the characters are uppercased
Shift
Capitalizes the first character entered.

alphabet/Sign
Press **ENTER** to select the type of characters entered: alphabet, or sign.

Back space/Delete
Erases text one character at a time.

NOTE

- You cannot operate the "TV Name Setting" function during "Screen Sharing" input.
  Operate this function during the input of other types.

Netflix Help

You can deactivate the Netflix function. Refer to "Information" > "Netflix Help" and select "Deactivate".
(See page 8-12.)

VUDU Help

To deactivate the VUDU function, refer to "Information" > "VUDU Help" and select "Yes".
(See page 8-12.)

Example

System Options

NOTE

- For operating the on-screen display menu, see page 4-3.

Power Control

Power control setting allows you to save energy.

Audio Only

When listening to music from a music program, you can turn the screen off and enjoy audio only.

NOTE

- The screen image will return to normal when a button (except those for audio adjustment, such as **VOL**, **MUTE**) is pressed.

Power Saving

This function allows you to set the Power Saving level in order to decrease the power consumption and increase the backlight lifespan.

Standard: Optimizes power reduction based upon video content. When set to "Standard", "" appears on the screen.

Advanced: Optimizes power reduction based upon video content and engages Light Sensor. When set to "Advanced", "" appears on the screen.

Off: This function does not work.

NOTE

- "Power Saving" does not function when you set AV MODE to "DYNAMIC (Fixed)".
- You cannot select a different Power Saving item for each AV MODE.
  When "Power Saving" is set, the "Automatic Light Sensor" settings for all AV Modes will automatically change.
  - If you set "Automatic Light Sensor" to "On" when "Power Saving" is set to "Standard", then the "Power Saving" setting will change to "Advanced".
  - When you change the "Power Saving" setting from "Advanced" to "Off" or to "Standard", "Automatic Light Sensor" will be set to "Off".
  - "DYNAMIC (Fixed)" will remain set to "Off".
- When "Power Saving" is set to "Standard" or "Advanced", the Power Saving leaf icon appears to the left of "Automatic Light Sensor" in the Picture Settings menu screen.

No Signal Off

When this function is enabled, the TV automatically shuts down if no signal is received for more than 15 minutes.

NOTE

- When it is 5 minutes before the power shuts down, the remaining time will start to keep appearing every minute.
- When a TV program finishes, this function may not operate.

No Operation Off

When you enable this function, the TV automatically shuts down if no operation is performed for more than 3 hours.

NOTE

- When it is 5 minutes before the power shuts down, the remaining time will start to keep appearing every minute.

Example

System Options (Continue)

Shortcuts

These functions are useful for adjusting the audio and video settings. The Shortcuts functions can be operated with the remote control unit.

SmartCentral Home

Displays the SmartCentral home screen.

App Dock

The application window can be displayed by selecting "App Dock" on the MENU screen.

NOTE

- You can display the application window by pressing **SmartCentral** on the remote control unit. (See page 3-6.)

View Mode

This function changes the screen size.
Select "Shortcuts" on the menu to display the View Mode menu screen.
The View Mode menu varies depending on the input source.

NOTE

- You can select View Mode by pressing **VIEW MODE** on the remote control unit.

— See pages 3-14 and 3-15 for adjusting the video being input from a TV, other audiovisual equipment, USB-Video, SD-Video, Home Network Video or Internet applications.
— See page 3-16 for adjusting the video being input from a PC.

Freeze

Allows you to capture and freeze a moving image that you are watching.

NOTE

- You can select Freeze by pressing **FREEZE** on the remote control unit. See page 3-4 for details of Freeze function.

Example

System Options (Continue)

Shortcuts

Change Audio

Allows you to change the audio when multiple audio is available for the program you are watching.

NOTE

- You can change Audio by pressing **AUDIO** on the remote control unit.
  See page 3-8 for details of Audio function.

Change CC

Allows you to change the Closed Caption display.
Select "Change CC" on the menu to display the Closed Caption information.

- The information displayed varies depending on the program you are watching.

NOTE

- You can change Closed Caption by pressing **CC** on the remote control unit.
  See pages 3-12 to 3-13 for details of Closed Caption function.

Advanced

Menu Design

Configures Letter and Caption screen display settings.

Channel Changing Effect
You can select whether to use transition effects when changing channels.

NOTE

- In some cases, "Channel Changing Effect" does not work.

Program Title Display
Select the CH display when changing channels for digital broadcasting.

Position
For adjusting a picture's horizontal and vertical position.

H-Pos.: Centers the image by moving it to the left or right.

V-Pos.: Centers the image by moving it up or down.

NOTE

- For resetting adjustments to the factory preset values, press ▲/▼ to select "Reset", and then press **ENTER**.
- When connecting a PC to the HDMI IN terminal, the image position will be automatically adjusted. It cannot be manually adjusted.
- The screen position variable ranges depend on the View Mode or the signal type. The ranges can be seen on the position-setting screen.
- Adjustments are stored separately according to input source.
- "Position" does not work when SD/USB mode, Home Network mode or an Internet application is used.

Example

System Options (Continue)

Advanced

Menu Design

Caption Setup
This function allows you to adjust the closed caption screen appearance to suit your preference.
Caption Size/Font Style/Foreground Color/Foreground Opacity/Background Color/Background Opacity/Character Edge

NOTE

- For resetting adjustments to the factory preset values, press ▲/▼ to select "Reset", and then press **ENTER**.
- The default value depends on the broadcasting station.

Startup Screen

With this function activated, the SHARP logo will be displayed when you turn on the TV.

NOTE

- This function is not available when the TV is set to "Quick Start Mode".

Demo Mode

You can select the image from several types of demo mode.

NOTE

- What kinds of setting item are available depends on the model of your TV.
- This function will be canceled when you press **EXIT** on the remote control unit.
- "Demo Mode" may not be selected depending on input signal type or application status.
- "Demo Mode" may be automatically canceled depending on input signal type.

Example

System Options (Continue)

Front Indicator Light

When this function is set to "On", the LED on the front of the TV turns on.

NOTE

- "On" is the factory preset value. If you want to turn off the LED, set the function to "Off".

Game Play Time

This function will enable the TV to display the elapsed time every 30 minutes, so that you do not become too absorbed in game playing to keep track of time.
Switch AV MODE to "GAME" to activate the function.

Operation Lock Out

This function locks the operation buttons on the TV and the remote control.

Off: No adjustment.

RC Control Lock: All buttons on the remote control are locked.

Button Control Lock: All buttons on the TV, except **POWER**, are locked.

When "RC Control Lock" or "Button Control Lock" is selected, a confirmation screen appears.

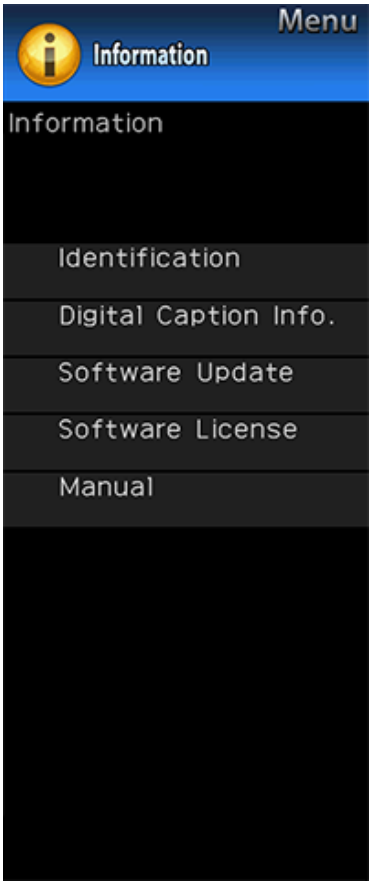
Yes: Locks the operation buttons.

No: No adjustment.

NOTE

- To unlock the buttons on the remote control by using the control panel of the TV (see page 4-4):
  ① Press **MENU** to display the MENU screen, press **VOL+/-** to select "System Options", and then press **INPUT**.
  ② Press **CH** ∧∨ to select "Operation Lock Out", and then press **INPUT**.
  ③ Press **CH** ∧∨ to select "Off", and then press **INPUT**.
  ④ Press **MENU** to exit.
- To unlock the buttons on the TV, press **MENU** on the remote control, and then select "Off" in "Operation Lock Out".

Example



Information

NOTE

- For operating the on-screen display menu, see page 4-3.

Identification

The current version of the TV software is displayed.

Digital Caption Info. (Digital Caption Information)

This function allows viewing of digital closed caption information for the digital broadcast program being viewed.

NOTE

- This list is not displayed for analog broadcasts or external input audio/video.
- This information is not included in CC1, CC2, Text1, or Text2, and is not displayed in a list.

Software Update

This is used to upgrade the system software to enhance the TV functions.

1 Press **MENU** to display the MENU screen, and then press ◄/► to select "Information".

2 Press ▲/▼ to select "Software Update", and then press **ENTER**.
- If you have already set the Secret No., go to step 3.

3 Input the 4-digit secret number by using **0**-**9**.

4 Press ▲/▼ to select "Manual Update" or "Auto Update Setting", and then press **ENTER**.
- The operations thereafter vary depending on the setting.

Auto Update Setting

When the TV is on, or when an Internet application is being accessed, this function enables the TV to connect to the network and check for updates automatically.
When an update is available, a message is displayed.
Press ▲/▼ to select "Yes", and then press **ENTER** to display the download screen.
(See page 4-34.)

NOTE

- This function does not work when a broadband connection or Internet Setup is not available.
- A message may also be displayed when an application is running.The message varies depending on the application.

Manual Update

Select the method for manually updating the software.

USB Update: Updates the software using a USB memory device containing the update file. (See "Updating the Software with a USB Memory Device".)

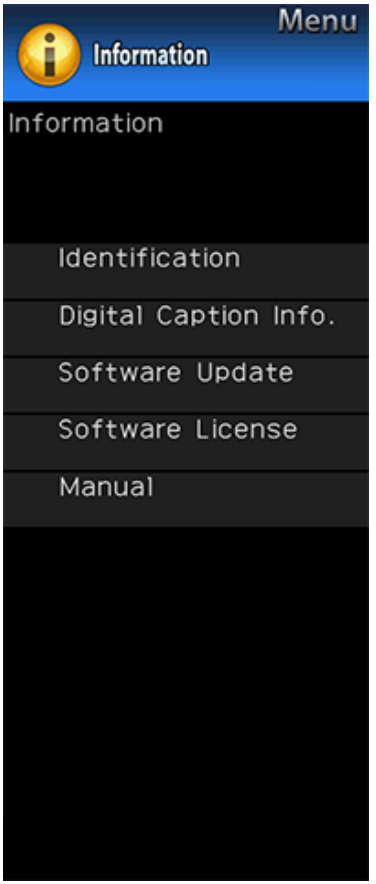
Network Update: Downloads the update file via the network and then updates the software.
(See page 4-34.)

NOTE

- You cannot update the software using a SD memory card containing the update file.
- A broadband connection and Internet Setup are required to update the software using the network.
(See pages 8-2 to 8-4.)
- It may take time to access and download the update depending on the Internet connection and other factors.

Updating the Software with a USB Memory Device
To check for the availability of a software update, visit http://www.sharpusa.com/products/support/. If you have any questions, please
call 1-800-BE-SHARP (800-237-4277).

Example



Information (Continue)

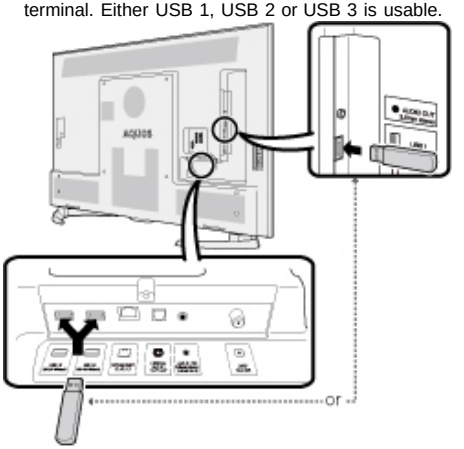
Software Update

Manual Update

CAUTION

- **Do not remove the USB memory device or unplug the AC cord while the software is being updated.**
- **Be sure to properly follow the whole procedure described below, step by step. Otherwise, for example, the TV cannot read the data in the USB memory device and software updating will fail.**

1 Insert the USB memory device with the update file into the USB 1, USB 2 or USB 3 terminal on the TV.
- When you update the software, use only one USB terminal. Either USB 1, USB 2 or USB 3 is usable.



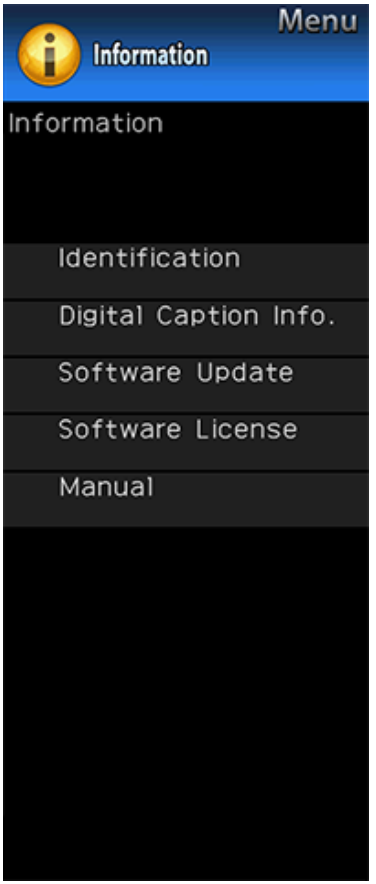
2 Press ▲/▼ on the Manual Update screen to select "USB Update", and then press **ENTER**.

3 Press **ENTER** to start checking the data in the USB memory device.
- The current version of the TV software and the version of the update file on the USB memory device are displayed.
- If the USB memory device is not properly installed or the correct update file cannot be found on the USB memory device, an error message is displayed. Check the file on the USB memory device, and then reinsert the USB memory device correctly.

CAUTION

- **Do not remove the USB memory device or unplug the AC cord while the software is being updated.**

Example



Information (Continue)

Software Update

Manual Update

4 When the software is successfully updated, a screen is displayed indicating that the update process is completed.

After this screen is displayed, the TV automatically turns off and then turns on again.
- If the update has failed, check the file in the USB memory device and try Software Update again.

5 Remove the USB memory device.

Updating the Software via the Network

1 Press ▲/▼on the Manual Update screen to select "Network Update", and then press **ENTER**.
- The TV connects to the network and checks for updates.
- To cancel, press **ENTER**.

2 The current version of the TV and the latest version of software are displayed. To update the TV software, select "Yes", and then press **ENTER**.
- When a server connection cannot be established or an update is not available, a message is displayed. If a server connection cannot be established, check the broadband connection and Internet Setup.

3 After the update file is downloaded, the software update process begins.

CAUTION

- **Do not unplug the AC cord while the software is being updated.**

4 When the software is successfully updated, a screen is displayed indicating that the update process is completed.
A screen indicating that the update is completed is displayed. 4 seconds later, the TV restarts automatically.
- If the software was not updated successfully, check the broadband connection and Internet Setup, and then try updating the software again.

Software License

Displays software version information.

Manual

Displays the built-in operation manual on the screen. You can read information about how to use this device.

Enjoying Photo/Music/Video Playback

Preparation

You can connect the TV to a USB memory device, USB hard drive, SD memory card or Home Network server to enjoy viewing pictures, listening to music, and watching videos.

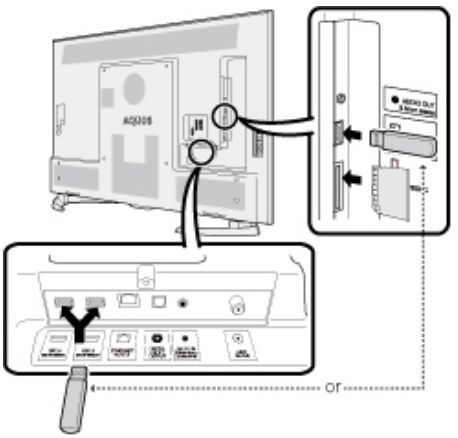
NOTE

- Depending on the USB memory device/USB hard drive/SD memory card/Home Network server, the TV may not be able to recognize the recorded data.
- It may take time to read the recorded data if the USB memory device/USB hard drive/SD memory card/Home Network server contains many files or folders.
- Use only alphanumeric characters for naming files.
- File names over 80 characters (may vary depending on character set) may not be displayed.

Connecting a USB Memory Device/USB Hard Drive/SD Memory Card

Insert the USB memory device or SD memory card with recorded photos, music or videos into the USB 1, USB 2 or USB 3 terminal or SD memory card slot on the TV.

- If USB memory devices are inserted into multiple terminals, the USB 1 terminal has priority.



- When connecting a USB hard drive, be sure to use a hard drive with an AC adapter.
- Do not remove a USB memory device or SD memory card from the TV while transferring files, using the slide show function, or switching screens, or before you exit "SD/SDHC/USB" from the INPUT list.
- Do not insert and remove a USB memory device/USB hard drive/SD memory card to and from the TV repeatedly.
- When using a card reader, be sure to insert a USB memory device first.

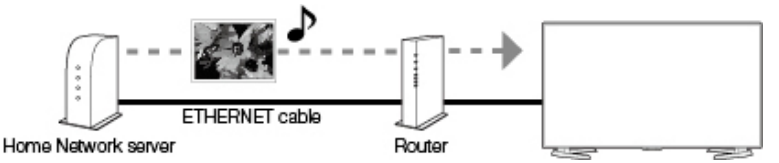
CAUTION

- **Do not use a USB extension cable when connecting a USB memory device to the USB terminal on the TV.**
- **Using a USB extension cable with the USB memory device may prevent the TV from performing correctly.**

Connecting a Home Network Server

Connect the TV to the Home Network server using an ETHERNET cable.

- You can also connect a Home Network server by using a wireless LAN.



NOTE

- Do not disconnect a Home Network server from the TV while transferring files, when a screen is switching to another or before you exit "Home Network" from the INPUT list.
- Do not connect and disconnect a Home Network server from the TV repeatedly.

Selecting the Folders to Play Back

- To play back data on a USB memory device or SD memory card, insert the USB memory device or SD memory card on the TV. SD/USB mode is selected automatically. (Go to step 2)
- Use the following procedure to switch back to SD/USB mode after switching from SD/USB mode to another mode.

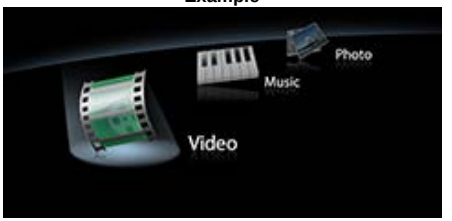
1 Select "SD/SDHC/USB" or "Home Network" from INPUT list screen.

2 Press **D**.

3 Press ▲/▼ (or ◀/▶) to select the drive/server where you want to find your files, and then press **ENTER**.
- ForSD/USB mode, select the drive.
- When in Home Network mode, select the server.

4 Press ◀/▶ to select "Photo", "Music" or "Video", and then press **ENTER**.

Example



5 Press ◀/▶ to select the desired folder, and then press **ENTER**.

NOTE

- The Media screen can be displayed even by using the application window. To display the application window, press **SmartCentral**. (See page 3-6.)
- You cannot switch the input mode if a USB memory device or SD memory card is not connected.
- You do not need to select the drive/server in step 3 when there is only one drive in the connected USB memory device or SD memory card or there is only one Home Network server connected to the TV.
- 16 is the maximum number of USB or SD drives and 10 is the maximum number of Home Network servers that can be displayed.
- If the TV is turned off and then on again, the number assigned to the USB or SD drive may change.

USB Device Compatibility

USB device	USB Memory, USB card reader (Mass Storage class), USB hard drive
File system	FAT/FAT32/NTFS (USB hard drive only)

SD memory card Compatibility

SD card	SD/SDHC memory card
File system	FAT/FAT32

Photo file format

Format	JPEG, PNG

Music file format

Format	Sampling rate [KHz]	Bitrate [Kbps]
MP3	8/11.025/12/16/ 22.050/24/32/44.1/48	8~320
AAC	32/44.1/48	8~320
WMA	8/11.025/16/22.05/ 32/44.1/48/64/88.2/96	8~384
WAV (LPCM)	8/11.025/12/16/ 22.050/24/32/44.1/48	8~1024

Selecting the Folders to Play Back (Continue)

Video file format

Container	Video	Audio
AVI	MPEG-1 MPEG-2 H.264 MPEG-4 VC1(WMV3) VP6/VP8	PCM: S16LE/S16BE/ U16LE/U16BE MP2: MPEG-1 Layer2 MP3: MPEG-1 Layer3 AC3 AAC WMA
MKV	MPEG-1 MPEG-2 H.264 MPEG-4 VC1(WMV3) VP6/VP8 HEVC	PCM: S16LE/S16BE/ U16LE/U16BE MP2: MPEG-1 Layer2 MP3: MPEG-1 Layer3 AC3 AAC WMA Vorbis
ASF	H.264 MPEG-4 VC1(WMV3)	PCM: S16LE/S16BE/ U16LE/U16BE MP3: MPEG-1 Layer3 AC3 WMA
PS/VRO/ VOB	MPEG-1 MPEG-2 H.264 MPEG-4	PCM: LPCM MP2: MPEG-1 Layer2 MP3: MPEG-1 Layer3 AC3 AAC
TS	MPEG-1 MPEG-2 H.264 MPEG-4	PCM: LPCM MP2: MPEG-1 Layer2 MP3: MPEG-1 Layer3 AC3 AAC
MP4/ SMP4	H.264 MPEG-4 VC1(WMV3)	MP2: MPEG-1 Layer2 MP3: MPEG-1 Layer3 AC3 AAC

NOTE

- Progressive format jpeg files are not supported.
- USB 1.1 devices may not be played properly.
- Operation using USB hubs is not guaranteed.
- Some video file formats may not be played depending on the file.
- Some images may not be displayed in the appropriate aspect ratio depending on the file format.
- If you insert any card other than the SD/SDHC (class 6 or higher), it will not work.
- File extensions are not used to determine the file format.

Home Network Server Compatibility

Photo file format	JPEG
Music file format	LPCM, MP3
Video file format	MPEG2-PS, MPEG2-TS, WMV, ASF, MP4, MOV, AVI

NOTE

- Progressive format jpeg files are not supported.
- Some video file formats may not be played depending on the file or the server.

Playing Back Files on a USB Memory Device/SD Memory Card/Home Network Server

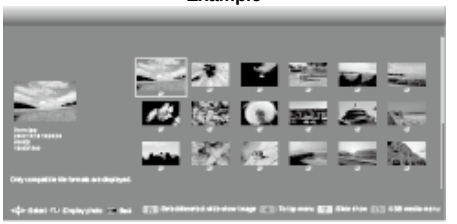
NOTE

- The screen images in this section are for the SD/USB mode. It may be slightly different in Home network mode.

Photo Mode

Viewing Thumbnails

Example



Buttons for thumbnail operations

Buttons	Description
▲/▼/◀/▶	Select a desired item.
ENTER	When selecting a folder icon: Enter this directory. When selecting a photo thumbnail: Enlarge the photo.
RETURN	Return to the previous process.
A (red)	SD/USB mode: Select the images to be displayed. Press this button to add or remove a checkmark.
	Home Network mode: Display the Media screen.
B (green)*	Display the music list screen. You can select the background music to be played for the slide show.
C (blue)	Start the slide show.
D (yellow)	Display the SD/USB MENU/Home Network Menu screen.

*This function is available only for the SD/USB mode.

NOTE

- When there are invalid photo files, the **X** mark will be displayed for the file. (SD/USB mode only.)
- You can see the file name, shooting date, file size and pixel size of the selected photo in the lower-left corner of the screen (shooting date is only available in the EXIF file format).

Playing Back Files on a USB Memory Device/SD Memory Card/Home Network Server (Continue)

Viewing Individual Photos

The photo selected on the thumbnail selection screen is displayed.

Buttons for individual display operation

Buttons	Description
◀/▶	Go to the previous/next photo in the same directory.
RETURN	Return to the thumbnail selection screen.
A (red)	Rotate the photo by 90 degrees to the left.
B (green)	Rotate the photo by 90 degrees to the right.
D (yellow)*	Display the SD/USB Menu screen.

* This function is available for the SD/USB mode only.

NOTE

- The key guide display disappears automatically after a particular time has elapsed. To display the key guide display again, press **DISPLAY**.

Slide Show

The photos displayed on the thumbnail selection screen are displayed as a slide show.

Buttons for slide show operation

Buttons	Description
RETURN	Return to the thumbnail selection screen.
D (yellow)	Display the SD/USB MENU/Home Network Menu screen.

NOTE

- The selected BGM is played repeatedly.
- The slide show continues until you press **RETURN**.
- For setting the slide show speed, select "Select Slide Show Interval" on the SD/USB MENU/Home Network Menu screen.
- The key guide display disappears automatically after a particular time has elapsed. To display the key guide display again, press **DISPLAY**.

Playing Back Files on a USB Memory Device/SD Memory Card/Home Network Server (Continue)

SD/USB MENU

On the menu to be displayed in SD/USB mode, use ▲/▼ to select an item and make settings to your preferences.

Example

Select Slide Show Interval
Specify the length of time before the next image appears. Press ▲/▼ to select the desired length of the time, and then press **ENTER**.
5sec/10sec/30sec/60sec

NOTE

- For Home Network mode, follow the same procedure.
- Depending on the photo files, the length of the slide show interval may differ from the selected interval time.

Select Slide Show BGM
The music list screen appears when you select "Select Slide Show BGM".
You can select the music to be played in the background while the slide show is being displayed.

1 Select the music you want to play from the music list.
- For operations on the music list screen, see "Music Mode".

2 Press **RETURN** to display the thumbnail selection screen, and then press **C** to start the slide show and the background music.

NOTE

- All of the music files are selected by default.

Set/Reset All Slide Show Image
Selecting "Set All Slide Show Image" or "Reset All Slide Show Image" will display the thumbnail selection screen. On the screen, set or reset the images to be displayed in the slide show.

Set All Slide Show Image: Checkmarks are added to all the images.

Reset All Slide Show Image: Removes all the checkmarks from all the images.

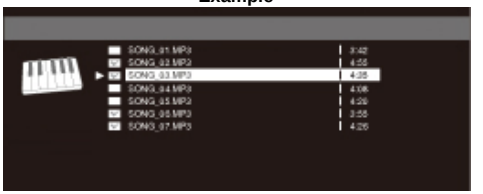
Sort
You can change the way in which files are ordered.Press ▲/▼ to select "new→old", "old→new", or "File name order", and then press ENTER.

Remove SD/USB Media Device
To remove the USB device or SD memory card properly, use ◀/▶ to select "Yes" and then press **ENTER**.

Playing Back Files on a USB Memory Device/SD Memory Card/Home Network Server (Continue)

Music Mode

Example



Buttons for music mode

Buttons	Description
▲/▼/◀/▶	Select a desired item.
ENTER	When selecting a folder icon: Enter this directory. When selecting a music file: Play music.
RETURN	Return to the previous process.
A (red)	SD/USB mode: Select the music to be played back. Press this button to add or remove a checkmark.
	Home Network mode: Display the Media screen.
B (green)	Stop music.
C (blue)	Play/(Pause)* music.
D (yellow)*	Display the SD/USB MENU screen.

* This function is available only for the SD/USB mode.

NOTE

- When there are invalid music files, the **X** mark will be displayed for the file. (SD/USB mode only.)
- The displayed play time may differ slightly from the actual play time depending on the files.

SD/USB Menu

On the menu to be displayed in SD/USB mode, use ▲/▼ to select an item and make settings to your preferences.

Example

*

* See page 5-6 for details on the Remove SD/USB Media Device function.

Set/Reset All Auto Play

Selecting "Set All Auto Play" or "Reset All Auto Play" will display the music list screen. On the screen, set or reset the music to be played back in the slide show.

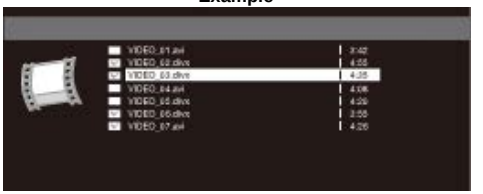
Set All Auto Play: Checkmarks are added to all the music files.

Reset All Auto Play: Removes all the checkmarks from all the music files.

Playing Back Files on a USB Memory Device/SD Memory Card/Home Network Server (Continue)

Video Mode

Example



Buttons for file selecting operations

Buttons	Description
▲/▼/◀/▶	Select a desired item.
ENTER	When selecting a folder icon: Enter this directory. When selecting a video file: Play the video.
RETURN	Return to the previous process.
A (red)	SD/USB mode: Select/deselect items (checkmarks are added to the selected items).
	Home Network mode: Display the Media screen.
B (green)*	Play the video file from the top of the file.
D (yellow)*	Display the SD/USB MENU screen.

* This function is available only for the SD/USB mode.

Playing Back Files on a USB Memory Device/SD Memory Card/Home Network Server (Continue)

Buttons for playing mode

Buttons	Description
▲	Go to the beginning of a file by pressing once or to the previous file by pressing twice.
▼	Go to the next file.
▶	SD/USB mode: The fast forward speed changes every time you press ▶. After playing to the end, the TV goes to the next file and starts to play.
	Home Network mode: Jump forward in a video. *2
◀	SD/USB mode: The reverse speed changes every time you press ◀. After going back to the beginning, the TV starts to play the same file.
	Home Network mode: Jump back in a video. *2
ENTER	SD/USB mode: Play/Pause the video.
	Home Network mode: Play/Pause the video. *2
RETURN	Go back to the file selection screen.

Buttons	Description
A (red)*1	Jump to the scene where playback was last stopped.
B (green)	Stop a video.
C (blue)	Display the USB/Home Network operation panel.
D (yellow)*1	Display the SD/USB MENU screen.
0-9*1	Jump to a point in the video during playback of a file without chapters. You can jump to a later point by pressing a higher number.*3

*1 These functions are available only for the SD/USB mode.
*2 Jump forward/back and play/pause may not be available depending on the files.
*3 During playback of a file without chapters, playback points are set automatically. Playback points are set at intervals of a one-tenth of playback time.
Example for a file with a playback time of 100 minutes:
Pressing **1** jumps 10 minutes forward, and pressing **2** jumps 20 minutes forward. Pressing **0** returns to the start of the file being played back.

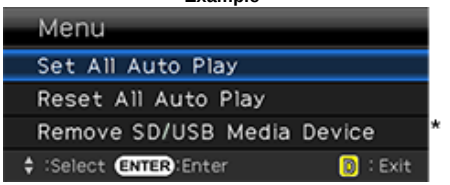
Playing Back Files on a USB Memory Device/SD Memory Card/Home Network Server (Continue)

SD/USB Menu

On the menu to be displayed in SD/USB mode, use ▲/▼ to select an item and make settings to your preferences.

Menu for file selecting operations

Example



*

* See page 5-6 for details on the Remove SD/USB Media Device function.

Set/Reset All Auto Play

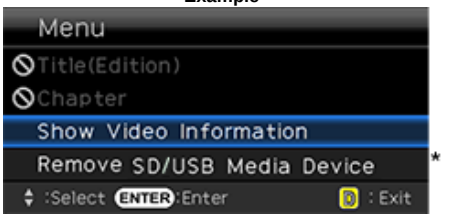
Selecting "Set All Auto Play" or "Reset All Auto Play" will display the video list screen. On the screen, set or reset the video to be played back in the slide show.

Set All Auto Play: Checkmarks are added to all the video files.

Reset All Auto Play: Removes all the checkmarks from all the video files.

Menu for playing mode

Example



*

* See page 5-6 for details on the Remove SD/USB Media Device function.

Title (Edition)/Chapter

Selecting "Title (Edition)" or "Chapter" will display a list of titles/chapters contained in the video file. Select the title or chapter you want to play back.

- The selected title or chapter is played back.
- "0-9" is displayed for files without chapters. Playback jumps to the playback point of the selected number.

NOTE

- If there is Edition information, this screen is displayed when the title is selected.
- If there is no title or edition, you cannot select "Title (Edition)".
- "Chapter" cannot be selected when there is no chapter.

Show Video Information

The information of the current file is displayed.

Playing Back Files on a USB Memory Device/SD Memory Card/Home Network Server (Continue)

USB Operation Panel/Home Network Operation Panel

You can use the operation panel for video playback operations.
You can call up this operation panel from "System Option" > "Shortcuts".

Example

Buttons for using the USB operation panel

◀◀	Hold down to go in reverse.
▶	Starts playback.
▶▶	Hold down to fast forward.
⏮	Video without chapters: Press once to return to the previous playback point.* Press twice to return to the previous file. Video with chapters: Press once to return to the previous chapter. Press twice to return to the previous file.
⏸	Sets pauses and still pictures.
⏭	Video without chapters: Press once to advance to the next playback point.* Press twice to display the next file. Video with chapters: Press once to advance to the next chapter. Press twice to display the next file.
Audio	Change the audio when multiple audio is available for the video you are watching.
■	Playback stops.
CC	Change the Closed Caption display.
Title	Displays the title (edition).
Resume jump	Jump to the scene where playback was last stopped.

* During playback of a file without chapters, playback points are set automatically. Playback points are set at intervals of a one-tenth of playback time.
Example for a file with a playback time of 100 minutes: Playback points are set every 10 minutes. Pressing ⏭ one time after viewing the file for 15 minutes jumps to the 20-minute playback point.

Playing Back Files on a USB Memory Device/SD Memory Card/Home Network Server (Continue)

NOTE

- Reverse/fast forward continues from one file to another during continuous playback.
- Use "CC" on the operation panel to change the Closed Caption display. You can also switch the Closed Caption display by using "System Options" > "Shortcuts" > "Change CC" or by pressing **CC** on the remote control unit.
- Use "Audio" on the operation panel to change the audio. You can also switch the audio by using "System Options" > "Shortcuts" > "Change Audio".

Buttons for using the Home Network operation panel

▶	Starts playback.
⏮	Go to the beginning of a file by pressing once or to the previous file by pressing twice.
⏸	Sets pauses and still pictures.
⏭	Go to the next file.
■	Playback stops.
↩	Jump back in a video.
↪	Jump forward in a video.

NOTE

- Jamp forward/back and play/pause may not be available depending on the file

Playing Back Files from a Portable Device or PC

With the remote playback function, you can use your portable device to play back pictures, video, and music on the Home Network server.

- To use the remote playback function, your portable device must be a DLNA Certified Digital Media Controller.
- A wireless access point is required to use a portable device.

Set Up Home Network

Make the settings for remote playback.

1 Press ◀/▶ to select "Smart TV", and then press **ENTER**.

2 Press ▲/▼ to select "Home Network", and then press **ENTER**.

3 Press ▲/▼ to select the specific adjustment item, and then press **ENTER** to set each item.

Remote Control Play Settings
This setting allows the TV to perform remote playback.

Permitted/Not allowed

Timeout Setup
This sets the time until the TV returns automatically to TV mode after remote playback ends.

10 sec./60 sec./No

NOTE

- This function may not work while an Internet application is being used.
- For information on the compatible formats, see "Home Network Server Compatibility" on page 5-3.

Presetting Remote Control Function

You can operate the connected AV products (AV receiver, cable box, SAT tuner, DTV, VCR, BD, DVD, LD) using the presetting manufacturer function of your remote control unit.

Presetting manufacturer codes

1 Press an appropriate button (**STB**, **DVD•VCR** or **AUDIO**) to operate the connected equipment.

2 Press an appropriate button (**STB**, **DVD•VCR** or **AUDIO**) and **DISPLAY** at the same time to enter the code registration mode.

3 Press **0**–**9** to enter the manufacturer code.
- Preset mode is finished once the LED no longer lights up.

4 After registering the code, the LED will stop blinking then turn off after one second. (If you perform an incorrect operation, the LED will blink quickly then turn off.)

Manufacturer codes

STB BRAND	REMOTE CONTROL CODE NUMBER
ANVISION	04, 05
CABLE STAR	04, 05
DISH NETWORK	39, 40
DIRECTV	41
EAGLE	05
G.INSTRUMENT	02, 03, 10, 11, 17, 20
GERROLD	17
JERROLD	02, 03, 10, 11, 12, 20, 25-34
MAGNAVOX	04, 05, 08, 12, 15, 16, 18, 19, 22, 23
MOTOROLA	38
OKA SIGMA	07
PANASONIC	14, 21
PHILIPS	04, 05, 08, 13, 15, 16, 18, 19, 22, 23
PIONEER	07
RANDTEK	04, 05
RCA	14, 36*, 37*
S.ATLANTA	01, 09, 24
VIEWSTAR	04, 05, 08, 13, 15, 16, 18, 19, 22, 23
ZENITH	06, 35

NOTE

- Numbers marked with * are SAT codes, all others are STB codes.

Presetting Remote Control Function (Continue)

BD/DVD/LD BRAND	REMOTE CONTROL CODE NUMBER
DENON	24
JVC	31
KENWOOD	36
MAGNAVOX	26
MARANTZ	26
MITSUBISHI	28
PANASONIC	24, 37
PHILIPS	26, 38
PIONEER	30, 33, 35
PROSCAN	25
RCA	25, 39
SAMSUNG	29, 34
SHARP	23, 32, 41, 42
SONY	27, 40
TOSHIBA	26
YAMAHA	24
ZENITH	26

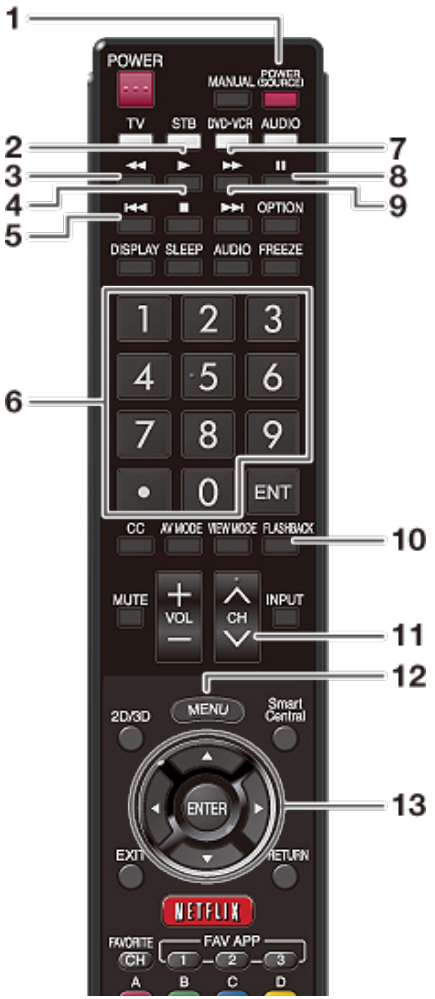
- Depending on the brand, the codes of some BD players may not be supported.

VCR BRAND	REMOTE CONTROL CODE NUMBER
AUDIO DYNAMICS	09
BROCKSONIC	13
CANON	04
CRAIG	12
CURTIS MATHIS	04
DBX	09
EMERSON	10, 13, 14
GE	04
INSTANT REOLYA	04
JC PENNEY	04
JVC	09, 16, 17, 22
KENWOOD	09
MAGNAVOX	04, 05, 06
MAGNIN	12
MEMOREX	04
MONTGOMERY WARD	02
NEC	09
PANASONIC	04, 18, 19, 20, 21
PENTAX	05
PHILCO	04, 05
PHILIPS	04, 05, 06
QUASAR	04
REALISTIC	01, 02
SAMSUNG	11, 12

Presetting Remote Control Function (Continue)

VCR BRAND	REMOTE CONTROL CODE NUMBER
SHARP	01, 02, 03
SONY	07, 08, 15
SYLVANIA	04, 05, 06
TATUNG	09
TEAC	09
TMK	10
YAMAHA	09

AUDIO BRAND	REMOTE CONTROL CODE NUMBER
SHARP	01
SHARP (SOUND BAR)	02



Operating the Connected Equipment

To operate the connected equipment, press **STB**, **DVD•VCR** or **AUDIO** to select your device. (STB (cable/satellite set-top box), BD, DVD, VCR or AUDIO.) The remote control unit button will function as follows.

- When you operate VCR, DVD or BD, press **INPUT** to select the terminal connected to your device.
- CABLE and SAT cannot be selected at the same time.

1 POWER (SOURCE)
- Turns the connected equipment power on and off.

2 ▶
- Starts playback. (VCR, BD, DVD)

3 ◀◀
- Rewinds the tape and allows picture search. (VCR)
- Hold down to go in reverse. (BD, DVD)

4 ■
- Stops the tape transport. (VCR)
- Playback stops when pressed. With some Blu-ray disc/DVD players, pressing the button twice may open the disc tray. (BD, DVD)

5 |◀◀
- Pressing quickly once takes you to the start of the chapter currently playing. Each time you press it, you move back to the start of the previous chapter. (BD, DVD)

6 0–9, • (DOT)
- Press a button (or buttons) that corresponds to the channel that you wish to watch.(STB)

7 ▶▶
- Rapidly advances the tape and allows picture search. (VCR)
- Hold down to fast forward. (BD, DVD)

8 ❚❚
- Sets pauses and still pictures. (VCR, BD, DVD)

9 ▶▶|
- Pressing quickly once takes you to the start of the next chapter. Each time you press it, you move ahead to the start of the next chapter. (BD, DVD)

10 FLASHBACK
- Press to switch between the current channel and the channel you were watching immediately before. Some manufacturers do not preset FLASHBACK. (STB)

11 CH∧/∨
- Press **CH∧** or **CH∨** to tune in to a higher or lower channel. (STB)
- Press to select the channel of the TV tuner on the VCR. (VCR)

12 MENU
- When this button is pressed, the BD/DVD menu will display. (BD, DVD)

13 ▲/▼/◀/▶, ENTER
- **▲/▼/◀/▶**: Press the button to select items on the STB GUIDE screen or STB MENU screen. (STB) Press the button to select items on the BD/DVD menu screen. (BD, DVD)
- **ENTER**: Press to activate the selected function. (STB, BD, DVD)

Using AQUOS LINK

Controlling HDMI Equipment Using AQUOS LINK

What's AQUOS LINK?

- Using the HDMI CEC (Consumer Electronics Control) protocol, with AQUOS LINK you can interactively operate compatible system equipment (Blu-ray disc equipment, AV amplifier, DVD).
- By connecting AQUOS LINK-compatible devices with HDMI-certified cables to the TV, you can control a recorder or AV amplifier using the remote control of the TV.
- AQUOS LINK allows you to operate the HDMI-connected equipment with one remote control.

NOTE

- Connect 4K signals (HDCP2.2) to the HDMI IN 4 terminal. These signals will not be displayed if connected to the HDMI IN 1, 2, or 3 terminals.
- For connecting the TV to AQUOS LINK-compatible equipment, use commercially available cables.
- Point the remote control toward the TV, not to connected HDMI equipment.
- Video noise may occur depending on the type of HDMI cable used. Make sure to use an HDMI-certified cable.
- Up to 3 pieces of HDMI recording equipment and one AV amplifier can be connected using this system.
- These operations affect the HDMI equipment selected as the current input source. If the equipment does not operate, turn on the equipment and select the appropriate input source using **INPUT**.
- The AQUOS LINK feature may not operate properly when an HDMI splitter or AV selector unit is used. These devices may cause interruptions to the image and/or sound.

Connected AQUOS LINK-compatible devices can be operated without changing the settings of the remote control unit.
The **OPTION** button will function only when AQUOS LINK is used.

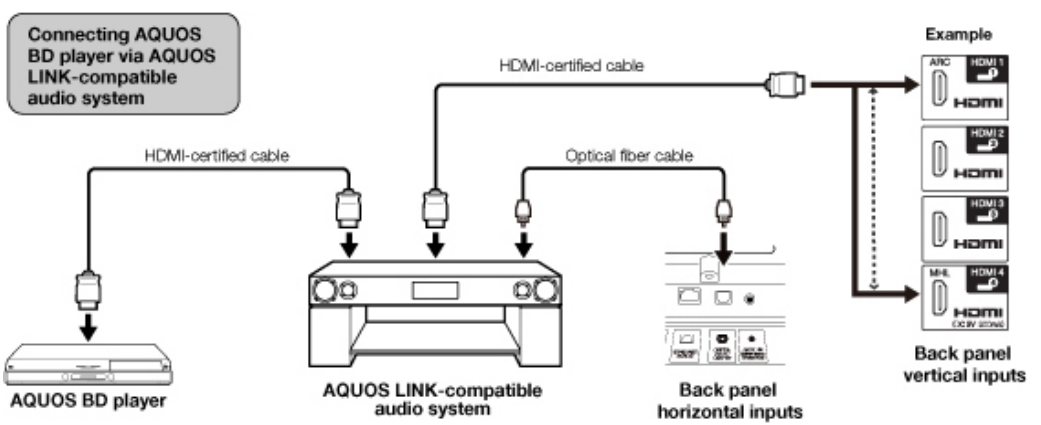
One Touch Play
While the TV is in standby mode, it automatically turns on and plays back the image from the HDMI source.

Single remote control
The AQUOS LINK automatically recognizes the connected HDMI device and you can control the TV and the devices as if using a universal remote control.

Control the AQUOS LINK-compatible audio system
Set the volume of AQUOS LINK-compatible audio system.

NOTE

- The above description is an example of the AQUOS LINK function.
- The steps in "AQUOS LINK Setup" on page 6-2 need to be completed beforehand.
- Refer to this operation manual and the operation manual of the AQUOS LINK device to be used with this TV.



Controlling HDMI Equipment Using AQUOS LINK (Continue)

AQUOS LINK Setup

Make the settings to use AQUOS LINK. Set the settings with "Setup" > "Advanced" > "AQUOS LINK Setup".

AQUOS LINK Control

Select AQUOS LINK Control to disable the AQUOS LINK function even when an AQUOS LINK-compatible HDMI device is connected to the TV. This function prevents the device from starting to operate unexpectedly.

Auto Power On

If this is activated, the One Touch Play function is enabled. While the TV is in standby mode, it automatically turns on and plays back the image from the HDMI source.

Selecting Recorder

When multiple AQUOS LINK-compatible devices are connected, this function allows you to set the recorder.

Channel Select Key

This function can be set for each input terminal.
The remote control unit of the TV can be used to select the channel, display program information, and perform other operations of the connected AQUOS LINK-compatible equipment.

Audio Return Channel

This function allows you to listen to the TV audio via audio equipment without using an optical fiber cable, which conventionally is required.

Requirements for using an ARC-compatible AV amplifier:

- ARC-compatible AV amplifier connected to the ARC-compatible HDMI IN 1 terminal.
  (Refer to the operation manual of the ARC-compatible equipment for details.)
- Use of an ARC-compatible cable.

Auto: You can listen to the TV audio with ARC-compatible audio equipment.

Off: This function does not work.

NOTE

- If the TV audio cannot be output from the AV amplifier even after making the necessary settings, connect the TV to the AV amplifier with an optical fiber cable and select "Off".

Controlling HDMI Equipment Using AQUOS LINK (Continue)

One Touch Playback

AQUOS LINK allows you to operate the HDMI-connected equipment with one remote control.

Press ▶ to start playing back a title.

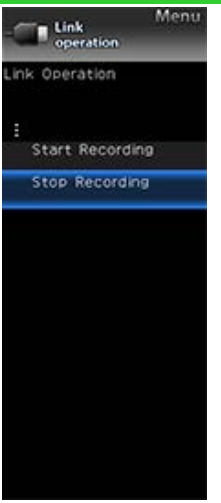
- The last played program is played back. You can use the following buttons during broadcast viewing.

Buttons	Description
POWER (SOURCE)	Turns the power of the HDMI connected devices on and off.
◀◀	Hold down this button to go in reverse.
▶	Starts playback.
▶▶	Hold down this button to fast forward.
■	Stops playback.
❚❚	Sets pauses and still pictures.
⏮	Pressing quickly once takes you to the start of the chapter currently playing. Each time you press it, you move back to the start of the previous chapter.
⏭	Pressing quickly once takes you to the start of the next chapter. Each time you press it, you move ahead to the start of the next chapter.

NOTE

- The buttons ⏮/⏭ do not function with the following Blu-ray disc players currently available.
  - BD-HP20U, BD-HP50U

Link Operation Menu



The Link Operation Menu allows you to make adjustments during operation of AQUOS LINK-compatible equipment.

1 Press **OPTION** to display the Link Operation Menu.

2 Press ▲/▼ to select the desired item, and then press **ENTER**.
- Specific operations differ depending on the item you select. Following are the basic operations for each item.

Recorder Power On/Off

You can manually turn on/off the power of the connected AQUOS LINK-compatible equipment.
Each time you press **ENTER**, the connected equipment switches on or off.

Device Operation Panel

You can use the device operation panel to control playback operations.

Press ▲/▼/◀/▶ to select the desired operation.

NOTE

- This function works only when AQUOS LINK-compatible equipment with the Device Operation Panel function is connected.

Play from Rec. List

This function allows you to display the title list for the connected equipment and to play back the title you want to enjoy.

Before using this function.
Power on the AQUOS LINK-compatible equipment, and select the appropriate external input.
Select the title with ▲/▼/◀/▶, and then press ▶ to start playback.

NOTE

- This function works only when AQUOS LINK-compatible equipment is connected.

Link Operation Menu (Continue)

Show Start Menu

You can call up a setup menu from the connected AQUOS LINK-compatible equipment.

NOTE

- Depending on the status of the equipment (recording or in standby mode, etc), the setup menu will not be displayed.
- The setup menu will not be displayed with the player BD-HP20U currently available.

Change Media of Device

You can switch the media (HDD or DVD) for playback or recording on the AQUOS LINK-compatible recorder.

- The Media type toggles each time you press **ENTER** in "Change Media of Device".

Link Booking (Rec. Book)

You can call up the AQUOS LINK-compatible recorder's EPG and preset timer recordings using the TV's remote control.
Select the program on the recorder's EPG.

- You can use ▲/▼/◀/▶, **ENTER**, **RETURN**, **EXIT** and the colored buttons.

NOTE

- This function works only when an AQUOS LINK-compatible recorder is connected.
- Refer to the operation manual of the recorder for details.

Change Audio Output Device

You can select to listen to the TV sound only from the AQUOS LINK-compatible audio system.

By AQUOS audio SP: The sound from the TV speaker is muted and only the sound from the AQUOS LINK-compatible audio system is audible.
- You can use **VOL+/-** and **MUTE**.

By AQUOS SP: The sound is output from the TV speaker.

Change Surround Mode

You can manually change the AQUOS AUDIO speaker system's sound mode.
The sound mode changes each time you press **ENTER**.

- Refer to the operation manual of the AQUOS LINK-compatible audio system for details.

HDMI Device Selection

If multiple HDMI devices are connected in a daisy chain, you can specify which device to control here.
Press ▲/▼ to select the desired device from a list of connected HDMI devices, and then press **ENTER**.

AQUOS Link Setup

You can also display the AQUOS LINK Setup screen from the Link Operation Menu.

Start/Stop Recording

You can also use the Link Operation Menu for recording on the connected AQUOS LINK-compatible equipment.

Using a Smartphone with the TV

This function enables you to connect the TV to a smartphone that supports Mobile High-Definition Link (MHL™) using an MHL cable.
To connect the TV to your MHL-compatible smartphone, be sure to use an MHL cable (commercially available).

- You can view pictures and video on a large screen.
- You can play back music files.

NOTE

- An MHL-compatible portable device is required to use this function. Connect the device to the HDMI IN 4 terminal.
- This product incorporates MHL 1.

Auto Power On
When an MHL-compatible device is connected to the TV, the TV turns on automatically.

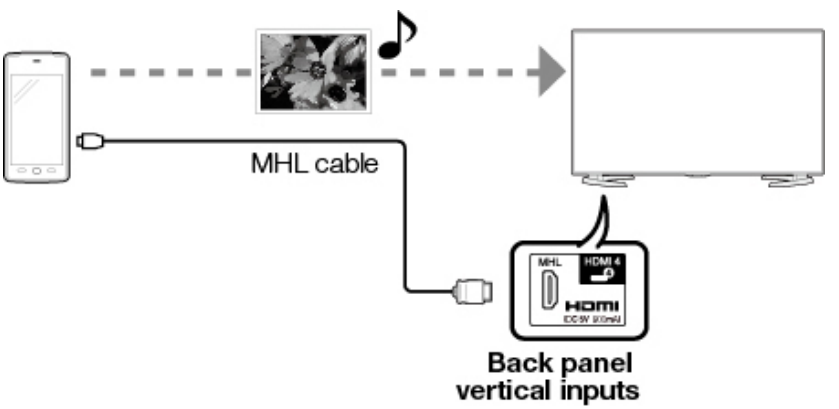
- This function operates when "AQUOS LINK Control" is set to "On".
(See page 6-2.)

Auto Input Selection
When an MHL-compatible device is connected while the TV is on, the input mode is selected automatically.

- This function operates when "AQUOS LINK Control" is set to "On".
(See page 6-2.)

Operation Using the Remote Control
The remote control of the TV can be used to operate a portable device.

- ▲/▼/◀/▶, **ENTER**, **EXIT**, **0**-**9**, • (DOT), **ENT**, etc.
- The operations vary depending on the connected equipment and content being viewed.



Using a PC

Setting Audio Input

Audio Select

This function sets the terminal to output the computer audio.
The adjustment items vary depending on the input source. Select the input source corresponding to the terminal connected to the PC and then adjust the desired item.
To perform the operation, refer to "Setup" > "Advanced" > "Audio Select".

HDMI 3

HDMI(Digital): Select this when the TV and PC are connected using an HDMI-certified cable and audio is input via the same cable.

HDMI+Analog: Select this when the TV and PC are connected using a HDMI-certified cable and the audio is input via a Ø 3.5 mm stereo minijack.

NOTE

- When "Audio Select" is set to "HDMI(Digital)", sound will not be produced if you use only an HDMI-certified cable to connect HDMI-compatible equipment. To produce sound, you should make an analog audio connection.
- If you want to connect HDMI-compatible equipment using only an HDMI-certified cable, set "Audio Select" to "HDMI(Digital)".

Control of the TV

- The TV can be controlled from a PC, control panels and other devices using the RS-232C or IP.
- Use a cross-type RS-232C cable, ETHERNET cable (commercially available) or wireless LAN for the connections.

NOTE

- This operation system should be used by a person who is accustomed to using computers.

AQUOS Remote Control

Set this function when operating the TV from equipment connected by LAN or wireless LAN. To perform the operation, refer to "Smart TV".

Remote Control App
When "Remote Control App" is selected, "Change" will be highlighted. Press **ENTER**.

Detailed Settings
Make the detailed settings (Login ID, password, etc.).
Follow the on-screen instructions to configure the settings.

TV Name Setting

Set the name of the TV displayed on other network devices.

- Use the software keyboard to set the name.
  See page 4-26 for details on the software keyboard.

Communication Conditions for IP

Connect to the TV with the following settings made for IP on the PC.

IP protocol:	TCP/IP
Host IP address:	Set the IP address on the TV menu
Service:	None (Do not select Telnet or SSH)
TCP port#:	Set a port number on the TV menu (Control port)

When you set your ID and password on the TV menu, you need to enter them as soon as you connect to the TV.

NOTE

- When you use this function, make settings for "AQUOS Remote Control".
- The connection will be cut off when there has been no communication for 3 minutes.

Communication Conditions for RS-232C

Set the RS-232C communication settings on the PC to match the TV's communication conditions.
The TV's communication settings are as follows:

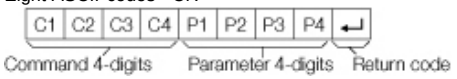
Baud rate:	9,600 bps
Data length:	8 bits
Parity bit:	None
Stop bit:	1 bit
Flow control:	None

Communication procedure
Send the control commands from the PC via the RS-232C or IP.
The TV operates according to the received command and sends a response message to the PC.
Do not send multiple commands at the same time.
Wait until the PC receives the OK response before sending the next command.

Control of the TV (Continue)

Command format

Eight ASCII codes +CR



Command 4-digits: Command. The text of four characters.
Parameter 4-digits: Parameter 0–9, x, blank, ?

Parameter

Input the parameter values, aligning left, and fill with blank(s) for the remainder. (Be sure that 4 values are input for the parameter.)
When the input parameter is not within an adjustable range, "ERR" returns. (Refer to "Response code format".)
Any numerical value can replace the "x" on the table.

0			

0	0	0	9

-	3	0	

When "?" is input for some commands, the present setting value responds.

?			

?	?	?	?

Response code format

Normal response

O	K	↵

Return code (0DH)

Problem response
(communication error or incorrect command)

E	R	R	↵

Return code (0DH)

Command table

- Commands not indicated here are not guaranteed to operate.

CONTROL ITEM		COMMAND				PARAMETER				CONTROL CONTENTS	
POWER ON COMMAND SETTING		R	S	P	W	0	_	_	_	Off	The Power On command rejected.
						1	_	_	_	On [RS-232C]	The Power On command accepted.
						2	_	_	_	On [IP]	The Power On command accepted.
POWER SETTING		P	O	W	R	0	_	_	_	Power Off	It shifts to standby.
						1	_	_	_	Power On	Power On
INPUT SELECTION	TOGGLE	I	T	G	D	x	_	_	_	(Toggle)	It input-switches by the toggle. (It is the same as an input change key)
	TV	I	T	V	D	0	_	_	_		It input-switches to TV. (A channel remains as it is. (Last memory))
	1-8	I	A	V	D	*	_	_	_	1: HDMI IN 1, 2: HDMI IN 2, 3: HDMI IN 3, 4: HDMI IN 4, 5: COMPONENT/ VIDEO IN	

NOTE

- If an underbar (_) appears in the parameter column, enter a space.
- If an asterisk (*) appears, enter a value in the range indicated in brackets under CONTROL CONTENTS.
- Any numerical value can replace the "x" on the table.

Control of the TV (Continue)

CONTROL ITEM		COMMAND				PARAMETER				CONTROL CONTENTS	
AV MODE SELECTION		A	V	M	D	*	*	*	_	0: (Toggle), 1: STANDARD, 2: MOVIE, 3: GAME, 4: USER, 5: DYNAMIC (Fixed), 6: DYNAMIC, 7: PC, 17: MOVIE THX	Although it can choose now, it is toggle operation in inside.
VOLUME		V	O	L	M	*	*	*_	_	Volume (0-100)	
POSITION	H-POSITION	H	P	O	S	*	*	*	_		The screen position variable ranges depend on the View Mode or the signal type.
	V-POSITION	V	P	O	S	*	*	*	_		

CONTROL ITEM	COMMAND				PARAMETER				CONTROL CONTENTS	
VIEW MODE	W	I	D	E	*	*	_	_	0: (Toggle) [AV], 1: Side Bar [AV], 2: S.Stretch [AV] 3: Zoom [AV], 4: Stretch [AV, USB-Video, Home Network Video or Internet applications], 5: Normal [PC] 6: Zoom [PC], 7: Stretch [PC], 8: Dot by Dot [PC] [AV], 9: Full Screen [AV] 10: Auto [USB-Video, USB-Photo, SD-Video, SD-Photo, Home Network Video, Photo or Internet applications], 11: Original [USB-Video, USB-Photo, SD-Video, SD-Photo, Home Network Video, Photo or Internet applications]	0: Although it can choose now, it is toggle operation in inside. 1: Only available when 4:3 signal is being input. 5, 6: Only available when 4:3 signal is being input. 8: [PC] Available except when UXGA is being input. [AV] Only available when the number of pixels on the screen and the resolution of the signal are the same. 9: Only available when the number of pixels on the screen and the resolution of the signal are different. 10, 11: Available when USB-Video, USB-Photo, SD-Video, SD-Photo, Home Network Video, Photo or Internet application is used.
MUTE	M	U	T	E	*	_	_	_	0: (Toggle), 1: On, 2: Off	

NOTE

- If an underbar (_) appears in the parameter column, enter a space.
- If an asterisk (*) appears, enter a value in the range indicated in brackets under CONTROL CONTENTS.
- Any numerical value can replace the "x" on the table.

Control of the TV (Continue)

CONTROL ITEM	COMMAND				PARAMETER				CONTROL CONTENTS	
SURROUND	A	C	S	U	*	_	_	_	0: (Toggle), 2: Off, 4: Hall, 5: Movie, 6: Standard, 7: Stadium	
AUDIO SELECTION	A	C	H	A	x	_	_	_	(Toggle)	
SLEEP TIMER	O	F	T	M	*	_	_	_	0: Off, 1: OFF TIMER - 30 MIN., 2: OFF TIMER - 60 MIN., 3: OFF TIMER - 90 MIN., 4: OFF TIMER - 120 MIN.	

CONTROL ITEM		COMMAND				PARAMETER				CONTROL CONTENTS	
CHANNEL	DIRECT CHANNEL (ANALOG)	D	C	C	H	*	*	*	_	The channel number of TV (1-135)	An input change is included if it is not TV display. In Air, 2-69ch is effective. In Cable, 1-135ch is effective.
	DIRECT CHANNEL (DIGITAL)	D	A	2	P	*	*	*	*	(0100-9999)	DIGITAL Air (Two-Part numbers, 2-digit plus 2-digit)
		D	C	2	U	*	*	*	_	(1-999)	DIGITAL Cable (Two-Part numbers, 3-digit plus 3-digit) Front half of DIGITAL CABLE CHANNEL NO. (Designate major channel)
		D	C	2	L	*	*	*	_	(0-999)	DIGITAL Cable (Two-Part numbers, 3-digit plus 3-digit) Rear half of DIGITAL CABLE CHANNEL NO. (Designate minor channel)

NOTE

- If an underbar (_) appears in the parameter column, enter a space.
- If an asterisk (*) appears, enter a value in the range indicated in brackets under CONTROL CONTENTS.
- Any numerical value can replace the "x" on the table.

Control of the TV (Continue)

CONTROL ITEM		COMMAND				PARAMETER				CONTROL CONTENTS	
CHANNEL	DIRECT CHANNEL (DIGITAL)	D	C	1	0	*	*	*	*	(0-9999)	DIGITAL Cable (One-Part numbers, 5-digit, less than 10,000)
		D	C	1	1	*	*	*	*	(0-6383)	DIGITAL Cable (One-Part numbers, 5-digit, more than 10,000)
	CH UP	C	H	U	P	x	_	_	_	The channel number of TV +1	If it is not TV display, it will input-switch to TV. (same function as CH ∧)
	CH DOWN	C	H	D	W	x	_	_	_	The channel number of TV -1	If it is not TV display, it will input-switch to TV. (same function as CH ∨)
CC		C	L	C	P	x	_	_	_	(Toggle)	Toggle operation of a closed caption.
DEVICE NAME		T	V	N	M	1	_	_	_		The device name set in “TV Name Setting” is displayed.
MODEL NAME		M	N	R	D	1	_	_	_		The model name of the TV
SOFTWARE VERSION		S	W	V	N	1	_	_	_		The current version of the TV software is displayed.
IP PROTOCOL VERSION		I	P	P	V	1	_	_	_		The currently supported version of IP protocol is displayed.

NOTE

- If an underbar (_) appears in the parameter column, enter a space.
- If an asterisk (*) appears, enter a value in the range indicated in brackets under CONTROL CONTENTS.
- Any numerical value can replace the "x" on the table.

Control of the TV (Continue)

CONTROL ITEM	COMMAND				PARAMETER				CONTROL CONTENTS	
REMOTE CONTROL BUTTONS	R	C	K	Y	*	*	_	_	0-9: 0-9, 10: DOT, 11: ENT, 12: POWER, 13: DISPLAY, 14: POWER (SOURCE) 15: ◀◀, 16: ▶, 17: ▶▶, 18: ❚❚, 19: ⏮◀◀, 20: ■, 21: ▶▶⏭, 23: OPTION, 24: SLEEP, 27: CC, 28: AV MODE, 29: VIEW MODE, 30: FLASHBACK, 31: MUTE, 32: VOL -, 33: VOL +, 34: CH ∧, 35: CH ∨, 36: INPUT, 38: MENU, 39: SmartCentral, 40: ENTER, 41: ▲, 42: ▼, 43: ◀, 44: ▶, 45: RETURN, 46: EXIT, 47: FAVORITE CH, 49: AUDIO, 50: A (red), 51: B (green), 52: C (blue), 53: D (yellow), 54: FREEZE, 55: FAV APP 1, 56: FAV APP 2, 57: FAV APP 3, 59: NETFLIX, 60: AAL, 61: MANUAL	

NOTE

- If an underbar (_) appears in the parameter column, enter a space.
- If an asterisk (*) appears, enter a value in the range indicated in brackets under CONTROL CONTENTS.
- Any numerical value can replace the "x" on the table.

Using a PC

PC Compatibility Chart

It is necessary to set the PC correctly to display XGA and WXGA signal.

Resolution		Horizontal Frequency	Vertical Frequency	VESA Standard	
VGA	720 x 400	31.5 kHz	70 Hz	—	
	640 x 480	31.5 kHz	60 Hz	○	
		37.9 kHz	72 Hz	○	
		37.5 kHz	75 Hz	○	
SVGA	800 x 600	35.1 kHz	56 Hz	○	
		37.9 kHz	60 Hz	○	
		48.1 kHz	72 Hz	○	
		46.9 kHz	75 Hz	○	
XGA	1024 x 768	48.4 kHz	60 Hz	○	
		56.5 kHz	70 Hz	○	
		60.0 kHz	75 Hz	○	
WXGA	1360 x 768	47.7 kHz	60 Hz	○	
SXGA	1280 x 1024	64.0 kHz	60 Hz	○	
SXGA+	1400 x 1050	65.3 kHz	60 Hz	○	
UXGA	1600 x 1200	75.0 kHz	60 Hz	○	
1080p	1920 x 1080	67.5 kHz	60 Hz	—	
2160p	3840 x 2160	53.95 kHz	24 Hz	—	*1
		56.25 kHz	25 Hz	—	*1
		67.5 kHz	30 Hz	—	*1
		135 kHz	60 Hz	—	*2

VGA and XGA are registered trademarks of International Business Machines Corp.
*1: When connecting 4K equipment, use HDMI IN 1, 2, 3 or 4 terminal.
*2: When connecting 4K60P equipment, use HDMI IN 1, 2, 3 or 4 terminal.

NOTE

When connecting HDCP 2.2 equipment, use HDMI IN 4 terminal.

Using the Internet

Connecting to the Internet

By connecting your TV to a broadband system, you can access the Internet from the TV.

- You can enjoy a variety of streaming content and Internet applications.
  (See pages 8-11 to 8-13.)

NOTE

- To connect your TV to the Internet, you must have a broadband Internet connection.
- If you do not have a broadband Internet connection, consult the store where you purchased your TV or ask your Internet service provider or telephone company.
- When an Internet connection is made, an Ethernet and wireless connection cannot be used at the same time. Use only one of the connection types.

Using an ETHERNET cable

Use an ETHERNET cable (commercially available) to connect the ETHERNET terminal on the TV to your broadband router (commercially available).

Using the wireless LAN

This TV is equipped with a wireless LAN function.
For a wireless LAN connection, you must use "Wireless Setup" to connect the access point and TV.

NOTE

- This TV has a built-in wireless LAN function. Using a separate wireless USB LAN adapter may result in radio communications that do not comply with regulations on radio communications. Therefore, do not use a separate wireless LAN adapter.
- A wireless LAN connection and performance cannot be guaranteed for all residential environments. In the following cases, the wireless LAN signal may be poor or drop, or the connection speed may become slower.
  - When used in buildings made with concrete, reinforced steel, or metal
  - When placed near objects that obstruct the signal
  - When used with other wireless devices that emit the same frequency
  - When used in the vicinity of microwave ovens and other devices that emit a magnetic field, electrostatic charge, or electromagnetic interference
- When there is significant interference in the 2.4-GHz frequency (such as from other wireless LAN devices, Bluetooth® devices, 2.4-GHz cordless telephones, and microwave ovens), it is recommended that you use a wireless LAN router/access point that supports IEEE802.11a/n (5 GHz) and set the access point to transmit at 5 GHz. For setup details, see the operation manual of your access point.

Internet Setup

Perform the procedure below to make adjustments or to confirm the settings for accessing the Internet.

1 Press **MENU** to display the MENU screen, and then press **ENTER**.

2 Press ◀/▶ to select "Smart TV", and then press **ENTER**.

3 Press ▲/▼ to select "Internet Setup", and then press **ENTER**.

4 Press ▲/▼ to select "Internet Connection" or "Interactive Service", and then press **ENTER**.
- Select "Internet Connection" when you make general adjustments to connect to the Internet.
- If you want to make settings to restrict access to the Internet, then select "Interactive Service".

5 Press ▲/▼ to select a specific item, and then press **ENTER**.

6 Press ▲/▼ (or ◀/▶) to select the desired setting, and then press **ENTER**.

7 Press **MENU** to exit.

Internet Connection

You can connect your TV to the Internet using the setting item "Internet Connection".

Auto Setup

Adjustments for network connection will be made automatically. Select "Wired" or "Wireless" and follow the instructions displayed on the screen.
- Automatic adjustments for wireless LAN connection can be made only for the WPS method.
  If your access point uses any other method, perform "Manual Setup".
  Select the desired connection method and follow the instructions shown on the display.

Manual Setup

You can make adjustments manually for network connection.

Connection Type
Select the connection type.

Wired: The signal is detected and setup is performed automatically. Use "IP Setup" to check and change the settings as necessary.

Wireless: Configure the access point settings on "Wireless Setup".

Internet Setup (Continue)

Wireless Setup
Make adjustments and confirm the settings necessary for wireless LAN connection (such as search for the access point and registration of it).

WPS push button: Allows the TV to automatically establish the connection using a button on the access point.

WPS PIN code: Sets up the connection by registering a PIN code for the access point.

Selecting wireless network: Searches for and selects the access point to be connected.

Registering wireless network: Allows you to make the connection by entering an SSID for the access point.

If your access point supports Wi-Fi Protected Setup (WPS push button method), it is recommended that you use this function for the wireless connection. You can press the WPS button on the access point to configure the settings automatically.

- The name of the WPS button function may differ depending on the access point. See the operation manual of the access point for details.

1 Confirm the current settings in "Connection Type".
- If "Wired" is selected, press ◀/▶ to select "Wireless".

2 Press ▲/▼ to select "Wireless Setup", and then press **ENTER**.
- Confirm the settings. If each setting item is correct, press **MENU** to exit.
- If you are configuring the wireless setup for the first time or changing the settings, go to step 3.

3 Press ◀/▶ to select "Change", and then press **ENTER**.

4 Select the desired connection method and follow the instructions shown on the display.

5 When a connection is established, the connection details are displayed. Press **ENTER**.

NOTE

- Operations cannot be guaranteed when used with access points that do not have Wi-Fi® certification.
- A wireless LAN router/access point is required to connect the TV to the Internet using a wireless LAN. See the operation manual of your access point for setup.
- If your access point is set to a stealth mode (that prevents detection by other devices), you may not be able to establish a connection. In this case, disable the stealth mode on the access point.
- A stable connection speed is required to play back streaming content. Use an Ethernet connection if the wireless LAN speed is unstable.
- Before transferring to a third party or disposal, be sure to initialize the wireless LAN settings.
- Please follow the legislation in your country when using the wireless LAN outdoors.

IP Setup
You can make adjustments manually for the IP.

- Check that numbers are displayed for each setting.
- If there are any settings without numbers, specify the numbers by following the on-screen instructions.
- Input the IP address by using remote control buttons 0-9.

Example

Internet Setup (Continue)

Connection Test

After the connecting and setting procedures have been completed, you can check that the preparation is correct. Press "Yes" to start the "Connection Test".

- When the test results are displayed, follow the instructions shown on the screen.

Interactive Service

If you do not want other people to connect to the Internet in your absence, you can make settings to keep the TV away from the Internet.

- Input the 4-digit secret number by using **0**-**9**.

NOTE

- If you have failed to connect to the Internet in the above operation, then an error message will appear. In this case, press **EXIT** to exit from the connected TV feature to make changes to the network settings.
- If you still cannot connect to the Internet, please consult your Internet service provider or telephone company.
- When an application is used, you cannot make settings for "Internet Setup".
  If you need to make the settings of "Internet Setup", press **EXIT** to exit from the connected TV feature.

If you cannot connect to the Internet

If the TV fails to connect to the Internet, then select "Internet Connection" and;

- When the TV is in a wired LAN connection, make sure the values for "IP Setup" are all correctly set.
- In the case of a wireless LAN connection, check the settings of "Wireless Setup".

Entering Text (Software Keyboard)

When you are editing an input screen or specifying the Network settings used for accessing the Internet, enter text from the software keyboard.

NOTE

- You can enter up to 128 characters for text.
- Some special characters or diacritics may not be available depending on where you enter the text.

The text you enter is displayed as you type it in.

While you are entering text, likely input conversion candidates are displayed based on what you typed in.

⇧(Caps Off/Caps Lock)
If "alphabet" is selected, this switches characters between uppercase and lowercase.
Each time you press **ENTER**, the character type switches as shown below:
Caps Off: all the characters are lowercased
Caps Lock: all the characters are uppercased

åé(alphabet/Sign)
Press **ENTER** to select the type of characters entered: alphabet, or sign.

Using the Browser

1 Press **SmartCentral**, press ◀/▶(or ▲/▼) to select the browser icon from the application window, and then press **ENTER**.
- Press **SmartCentral** again to display a list of applications by category.

Buttons for Using the Browser

ENTER, ▲/▼/◀/▶
- Press ▲/▼/◀/▶to select a link that you want to jump, and then press **ENTER**.
- To display the toolbar, press ▲to move the cursor to the top of the display.

EXIT
- Press the button to return to the TV screen.

RETURN
- Press the button to return to the previous page.

NOTE
- Restrictions apply to window display.

Using the Browser (Continue)

Tool bar

Selected item	Description
	Goes to the top page that exists for the Speed Dial and bookmarks.
	Displays a list of pages in a tab that have been displayed up to now.
	Refreshes the page. Interrupts a page while it is loading.
	Displays the bookmarks list.
	Restrictions apply to window display.
	Displays the menu.
	Displays your browsing history.
	Configures browser settings such as your home page and browsing security. (See page 8-9.)
	Searches for a phrase in the page.
	Displays the browser's help.
	Exits TV Browser.

Selected item	Description
	When Edit Mode is on, you can change the position of the Speed Dial items.
	Displayed when the Speed Dial thumbnails cannot be used (example: when loading).
	Indicates that the selected item can be moved during Edit Mode.

Using the Toolbar

You can use the toolbar to control the browser and to specify settings.

1 When the cursor is moved to the top of the display by pressing ▲, the toolbar will be displayed.
2 Press ◀/▶ to select a function, and then press **ENTER**.

Browsing Web Contents

You can display the web content you want to enjoy.

1 When the cursor is moved to the top of the display by pressing ▲, the toolbar will be displayed.
2 Press ◀/▶to move to the address area in the toolbar, and then press **ENTER**.
- The Enter Address menu is displayed.

3 Enter an address, and then press **ENTER**.
- The web content you want to view is displayed.

Using the Browser (Continue)

CAUTION

- If the power is cut due to a power failure or the TV being unplugged while you are using the Internet, information such as bookmarks or cookies may not be saved correctly.

NOTE

When a security notification window is displayed:

- Press **ENTER** to close the window.
- This window appears when you visit a web page that has security protection, or when you move from a protected page to an unprotected page.

To users who access the Internet from a PC

- When you access the Internet from this TV, the procedures may not be the same as regular browser-based access on a PC.
- On some pages, video and audio, text or images may not be displayed correctly.

About links

- Web pages on the Internet often include "links" that allow you to jump to other web pages (or sites).
- "Links" can take various forms, including words or images, but they always work in the same way letting you jump to the link destination when you select them.
- Selected items (such as links of text input fields) are enclosed in a frame.
- You can jump from a "link" to the corresponding link destination.

DISCLAIMERS

SHARP corporation bears no responsibility regarding the content and quality of the content provided by the content serve provider.

Using the Browser (Continue)

Browser Settings

You can check or modify your browser settings from the Browser menu.

1 When the cursor is moved to the top of the display by pressing ▲, the toolbar will be displayed.

2 Press ◀/▶to select " " in the toolbar, and then press **ENTER**.

3 Press ▲/▼ to select and confirm the item you want to set.

4 Press ▲/▼/◀/▶ to specify the required setting, and then press **ENTER**.

Using Keyboard and Mouse

You can use a keyboard or mouse for operating the TV while using the browser.

- When you use the USB devices, connect the device to the USB terminal on the TV.
- When you use the bluetooth device, make necessary settings with "Bluetooth". (See page 4-24.)

NOTE

- The keyboard and mouse can only be used on a browser screen.
  The keyboard or mouse may not operate properly depending on the application being used.
- The software keyboard cannot be used by the keyboard and mouse connected via Bluetooth even on the browser screen.
- The bluetooth device may not operate properly depending on the device being used.

Using Applications via the Internet

By connecting the TV to the Internet, you can enjoy a variety of broadband content, including videos, music and photos.

Please check that the most current software is loaded on TV by selecting "Auto Update Setting" on "Software Update"
(see page 4-32) or by visiting
http://www.sharpusa.com/products/support/
to check for a download of the newest software version.

Use the application window to access your favorite Internet applications. Press **SmartCentral** to display the application window.
Follow the on-screen instructions for each application.

- When using this TV to access an Internet application for the first time, the Disclaimer appears on the screen. Press ▲/▼ to select "Agree", and then press **ENTER**. (You must select "Agree" to use the application.)
- Check the web site of the provider for details on setup and use of the functions.

NOTE

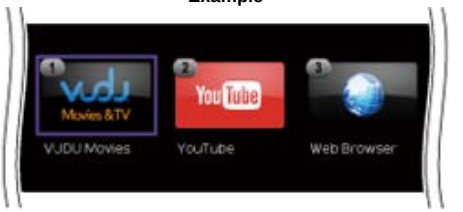
- If " " or " " is displayed, check your TV's network settings and connection.
- Additional applications will be available in the future.
- These applications are provided by content providers. The available applications vary depending on your country or region.
- The delivery speed of applications varies depending on the network speed. Check the web site of the provider for details on application setup and other information.

Using the Application Window

During Dock Display

You can move the application icons and delete any unused icons.

Example



1 Select an application, and then press ▲.
2 Press ▲/▼ to select "Move App" or "Delete App", and then press **ENTER**.

Move the Icons
You can move the icons of the more commonly used applications closer to the left.
Press ◀/▶ to move the icon to the desired location.

Delete an Application
Select "Delete App" to delete the icon.

Saving Favorite Applications
You can set your favorite applications to the **FAV APP1**, **2**, and **3** buttons on the remote control for easier startup.
The applications whose icons are moved onto ①, ② and ③ during Dock Display will be assigned to the **FAV APP 1**, **2** and **3** buttons respectively.

NOTE

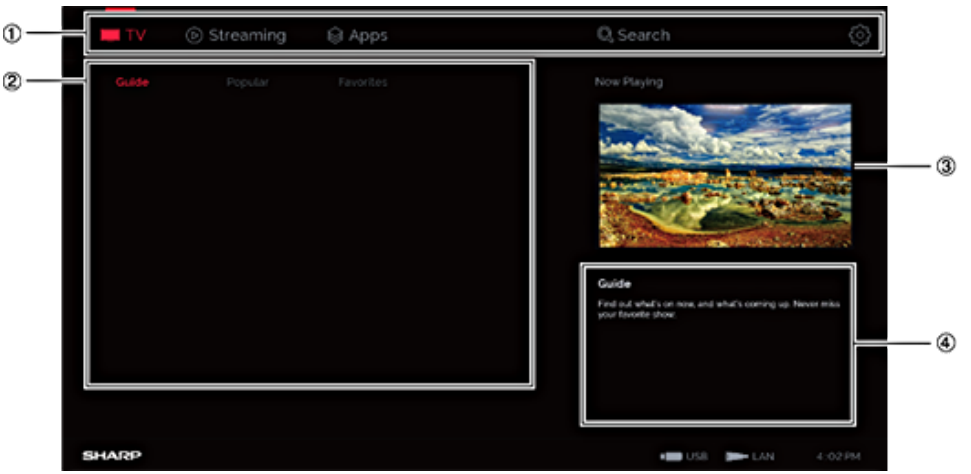
- The SmartCentral icon cannot be moved or deleted.

Using the Internet

Using Applications via the Internet (Continue)

During Gallery Display

During Dock display, press **SmartCentral** again to display a list of applications by category.



1 Press ◀/▶ to select a category, and then press **ENTER** or ▼.
2 Press ▲/▼/◀/▶ to select an application, and then press **ENTER**.

①Displays the categories.
TV: Displays broadcast programs.
Streaming: Displays VOD content.
Apps: Displays various apps offered by AQUOS.
Search: Allows you to search broadcast programs and VOD.
Settings: Allows you to configure various settings for this function.

②Displays a list of contents and applications for the selected category.

③Displays the image now playing.

④Provides a description of the selected item.

Deactivating Netflix Function

You can deactivate the Netflix function. Refer to "Information" > "Netflix Help" and select "Deactivate".
- To confirm the Netflix status, check the information displayed on the screen and click "OK".

Deactivating the VUDU Function

To deactivate the VUDU function, refer to "Information" > "VUDU Help" and select "Yes".When you access the Internet application for the first time, the following appears.
- This message is available only in English.

Using Applications via the Internet (Continue)

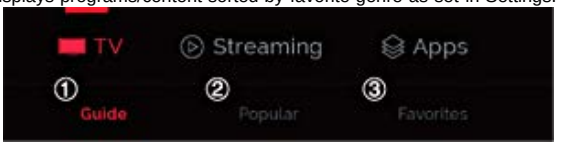
SmartCentral TV/Streaming

When "TV" or "Streaming" is selected on the SmartCentral screen, a list of broadcast programs or VOD is displayed.

①(TV)Guide: Displays a list of all broadcast programs.
(Streaming)New: Displays a list of new content.

②Popular: Displays popular programs.

③Favorites: Displays programs/content sorted by favorite genre as set in Settings.



NOTE

- To display broadcast programs, you must set your ZIP code and TV provider on the Settings screen.
- To display streaming content, you must select the apps on the Settings screen. However, the set apps may not be displayed on the list depending on the region.

SmartCentral Search

You can search across broadcast programs and VOD.

AQUOS Advantage Live

When you select this app on the SmartCentral screen, you can use the remote support function from the support center and display the network status.

Notes

DISCLAIMERS

- This SHARP device facilitates the access to content and services provided by third parties. The content and services accessible via this device belong to and may be proprietary to third parties. Therefore, any use of such third party content and services must be in accordance with any authorization or terms of use provided by such content or service provider. SHARP shall not be liable to you or any third party for your failure to abide by such authorization or terms of use. Unless otherwise specifically authorized by the applicable content or service provider, all third party content and services provided are for personal and non-commercial use; you may not modify, copy, distribute, transmit, display, perform, reproduce, upload, publish, license, create derivative works from, transfer or sell in any manner or medium any content or services available via this device.
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Examples of Application Logos

Using the Bluetooth/Miracast devices

Bluetooth devices

You can listen to music from your TV when you connect a smartphone or other Bluetooth music player to your TV.
And when "Quick Start Mode" is set to "ON", you can also turn on your TV with a Bluetooth signal. (The TV automatically goes to the Bluetooth Music playback screen)

1 Switch the TV input to "Bluetooth".

NOTE

- Before using a Bluetooth device, you must pair it to the TV with "Menu" > "Smart TV" > "Bluetooth" > "Pairing New Device" > "Other Devices Setting".
- When the Bluetooth device is connected to the TV over a wireless LAN, Bluetooth audio may be interrupted depending on the status of the TV's connection to the access point.

Miracast devices

When you connect a device such as a Miracast-compatible smartphone or tablet to this TV, you can enjoy video and audio from the device on the TV's large screen and speakers.

1 Switch the TV input to "Screen Sharing".

2 Enable the Miracast function on the Miracast device and connect to the TV.
(The TV screen changes according to the behavior of the device)

NOTE

- When the TV is turned off or the connection is ended on the device, you must connect the device again.
- When connecting using a PIN code, first select the corresponding menu on the "Miracast Screen Sharing" menu, and then perform the operations from step 1.
- If you want to specify the preferred band to use with this function, select the corresponding menu on the "Miracast Screen Sharing" menu.
(See page 4-25.)
- You cannot operate the "Miracast Screen Sharing" function during "Screen Sharing" input. Operate this function during the input of other types.
- For details about the operation of the Miracast-compatible device, check the manual for that device.
- When the Miracast device is connected to the TV over a wireless LAN, Miracast video may be distorted and Miracast audio may be interrupted depending on the status of the TV's connection to the access point.

Appendix

Removing the Stand

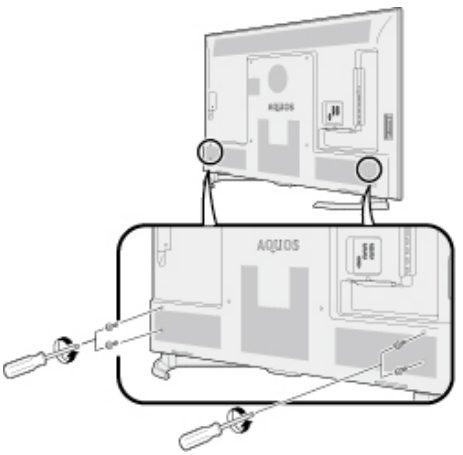
- Before detaching (or attaching) the stand, make sure to turn off the TV and unplug the AC cord.

CAUTION

- **Do not remove the stand from the TV unless using an optional wall mount bracket to mount it.**

1 Unfasten the four screws used to secure the stand in place.

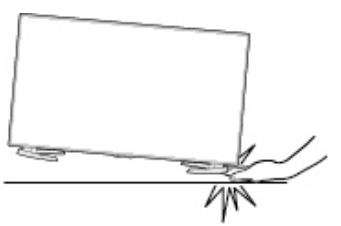
Example



2 Detach the stand from the TV.

NOTE

- Be sure to always carry the TV by two people holding it with two hands.
- In the installation procedure, be careful not to catch your fingers between the TV set and the floor.



Appendix

Setting the TV on the Wall

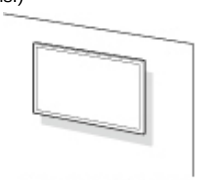
Using an optional bracket to mount the TV

- You can ask a qualified service professional about using an optional AN-52AG4 bracket to mount the TV on the wall.
- Carefully read the instructions that come with the bracket before beginning work.

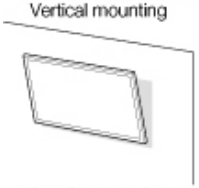
CAUTION

- **This TV should be mounted on the wall only with the wall mount bracket AN-52AG4 (SHARP). The use of other wall mount brackets may result in an unstable installation and may cause serious injuries.**
- **Installing the TV requires special skill that should only be performed by qualified service personnel. Customers should not attempt to do the work themselves. SHARP bears no responsibility for improper mounting or mounting that results in accident or injury.**

Hanging on the wall
AN-52AG4 wall mount bracket.
(See the bracket instructions for details.)



Vertical mounting



Angular mounting

Hanging on the wall

AN-52AG4

LC-70UD27U

- The center of the display:
  3/32 inch (2mm) above the "c" position.

LC-60UD27U

- The center of the display:
  13/32 inch (10mm) above the "c" position.

- Refer to the operation manual of AN-52AG4 for details.

The wall mount kit (sold separately) allows you to mount the TV on the wall.
For detailed information on installing the wall mount, see the instructions provided with the product.
We recommend you to contact a technician for assistance when installing it.
SHARP is not responsible for any damage to the product or injury to yourself or others if you elect to install the wall mount on your own.

CAUTION

- **Install your wall mount on a solid wall perpendicular to the floor.**
  When you want to attach the wall mount to surfaces other than plaster board, please contact your nearest retailer/adviser for additional information. If you install the TV on a ceiling or slanted wall, it may fall and result in severe personal injury. Always have two people mount the TV on a wall.

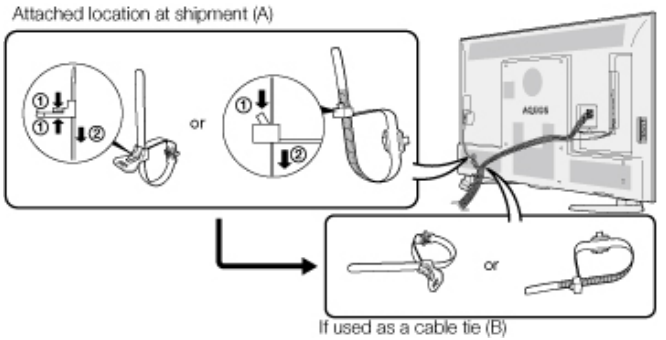
NOTE

- Due to the terminal configuration on this TV, when you wall-mount this model, make sure there is enough space between the wall and the TV for the cables.
- To use this TV mounted on a wall, remove the AC cord holder on the rear of the TV, and then use the screws supplied with the wall mount bracket to secure the bracket to the rear of the TV.

Appendix

Setting the TV on the Wall(Continue)

LC-70UD27U/LC-60UD27U

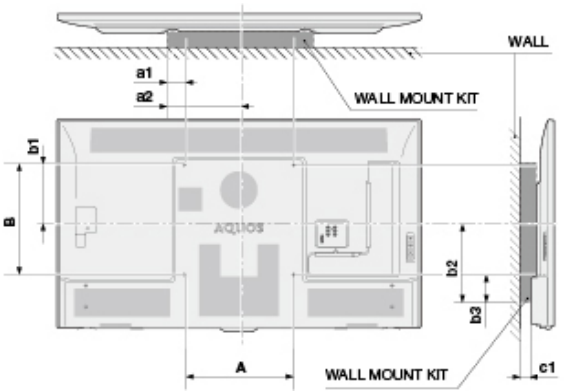


- The location of the AC cord holder differs depending on whether it is in its shipment location (A)or has been used as a cable tie (B).

Appendix

Setting the TV on the Wall(Continue)

Wall Mount Kit Specifications
Standard dimensions for wall mount kits are shown below.

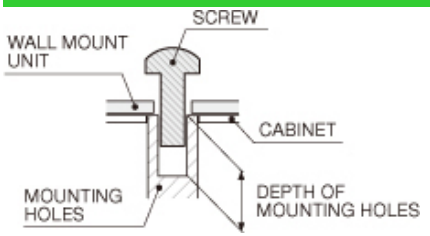


a1: Maximum distance from the mounting hole
a2: Maximum distance from the TV's center
b1: Distance between the TV's center and the mounting hole
b2: Maximum distance from the TV's center
b3: Maximum distance from the mounting hole
c1: Minimum gap

		LC-70UD27U	LC-60UD27U
VESA screw hole specs (A-B)		15 3/4 (400) - 15 3/4 (400)	
Width	a1	2 3/8 (60)	
	a2	10 1/4 (260)	
Height	b1	8 9/32 (210)	8 19/32 (218)
	b2	10 29/32 (277)	10 41/64 (270)
	b3	3 7/16 (87)	
c1		2 39/64 (66)	

Appendix

Setting the TV on the Wall(Continue)



For the screws, refer to the table shown below.

	70/60 inch models
Standard screws	M6 (Use 1.0 pitch screws.)
Length(Depth of mounting holes)	15/32 (12)
Quantity	4 pcs.

NOTE

- Do not mount the TV at a tilt.
- To use this TV mounted on a wall, remove the cable tie as needed.
- Do not use screws that do not comply with the VESA standard screw specifications.
- Do not use screws that are longer than the standard length. Screws that are too long may cause damage to the inside of the TV.
- Do not fasten the screws too firmly or loosely. This may damage the product or cause the product to fall, leading to personal injury. SHARP is not liable for these kinds of accidents.
- SHARP is not liable for product damage or personal injury when a non-VESA or non-specified wall mount is used or the consumer fails to follow the product installation instructions.

Do not install the wall mount kit while your TV is turned on. It may result in personal injury due to electric shock.

Appendix

Troubleshooting

Problem	Possible Solution
• No power	• Check if you pressed **POWER** on the remote control unit. • Is the AC cord disconnected? • Has the power been turned on?
• Unit cannot be operated.	• External influences such as lightning, static electricity, may cause improper operation. In this case, operate the unit after first turning off the power of the TV or unplugging the AC cord and replugging it in after 1 or 2 minutes.
• Remote control unit does not operate.	• Is the equipment to be operated by the remote control unit set correctly? Press **TV** to set the remote control unit to the setting for operating the TV. • Are batteries inserted with polarity (+, -) aligned? • Are batteries worn out? (Replace with new batteries.) • Are you using it under strong or fluorescent lighting? • Is a fluorescent light illuminated near the remote control sensor? • Is "RC Control Lock" selected in "Operation Lock Out"? Page 4-31
• Picture is cut off/with sidebar screen.	• Is the image position correct? Page 4-29 • Are screen mode adjustments such as picture size made correctly? Pages 3-14 to 3-16
• Strange color, light color, or color misalignment	• Adjust the picture tone. Pages 4-5 to 4-10 • Is the room too bright? The picture may look dark in a room that is too bright.
• Power is suddenly turned off.	• Is the sleep timer set? Pages 3-9 • Check the power control settings. Page 4-27 • The unit's internal temperature has increased. Remove any objects blocking vent or clean.

Problem	Possible Solution
• No picture	• Is connection to other components correct? • Is the correct input selected? Pages 2-1 • Is "On" selected in "Audio Only"? Page 4-27 • If the PC image is not displayed, check the following: - When connecting a laptop PC to the TV, check that display output mode of the PC is set to external monitor. - Check the resolution setting on the PC. Is a non-compatible signal being input? Page 7-8 • The 4K signal (HDCP2.2) can be viewed via HDMI IN 4 only. Change the connection.
• Picture quality of HD programs is poor.	• To enjoy HD images from external equipment, you are required to set up HDMI connection or component connection. • If the program content is not of HD quality, HD images cannot be displayed. Check that the program you are viewing provides HD images. • The HD cable/satellite set-top box may need to be configured to output HD images via cable/satellite. • The cable/satellite broadcast may not support a signal resolution of 1080p.
• The TV sometimes makes a cracking sound.	• This is not a malfunction. This happens when the cabinet slightly expands and contracts according to change in temperature. This does not affect the TV's performance.
• Some Internet functions used on a PC are not available from the TV.	• The TV has only limited functions compared with regular PC browsers. Pages 8-6 to 8-8

Troubleshooting (Continue)

Problem	Possible Solution
• No sound	• Is connection to other components correct? • Is the volume too low? Page 3-2 • Is "Variable" selected in "Output Select"? Page 4-20 • Have you pressed **MUTE** on the remote control unit? Page 3-3 • Check the audio output of the connected external equipment. Is the volume too low or muted? • When external equipment is connected via an HDMI cable, you may need to configure the audio to be output through the HDMI cable. • When audio is not output from external equipment connected to the HDMI IN 3 terminal, check the "Audio Select" setting. Page 7-1 • Even when external equipment is connected using an HDMI-certified cable, an audio cable connection may be required depending on the type of equipment and the media being played back. In this case, in addition to connecting an HDMI-certified cable to the HDMI IN 3 terminal, connect a Ø 3.5 mm stereo minijack cable to the AUDIO IN terminal and set "Audio Select" to "HDMI+Analog". Page 7-1 • When connecting a PC via an HDMI-certified cable, check the following: - Is the audio output of the PC configured correctly? Check the audio output settings and output audio format in Sound Properties on the PC. The audio formats compatible with this TV are PCM, Dolby Digital. With other formats, audio cannot be output. - Depending on the board, only video signals may be output. In this case, in addition to connecting an HDMI-certified cable to the HDMI IN 3 terminal, connect a Ø 3.5 mm stereo minijack cable to the AUDIO IN terminal and set "Audio Select" to "HDMI+Analog". Page 7-1

Problem	Possible Solution
• Bluetooth (smartphone) playback cannot be displayed on the TV.	• Check pairing. • If you register 6 or more smartphones, these smartphones will be automatically deleted starting with the ones that are not being used. Perform the pairing operation again.
• Miracast image/audio cannot be output to the TV.	• Check pairing.

Appendix

Troubleshooting - Error Message

The example of an error message displayed on a screen	Error code	Possible Solution
• Failed to receive broadcast.	**E202**	• Check the antenna cable. Check that the antenna is correctly setup.
• No broadcast now.	**E203**	• Check the broadcast time in the program guide.
• An incompatible audio signal has been received. Check the output device settings.	—	• This message is displayed when an audio format other than PCM, Dolby Digital is input. - Set the audio output format of connected external HDMI equipment to PCM, Dolby Digital. - Refer to the operation manual of the external equipment for setting details.

Appendix

Information on the Software License for This Product

Software License

You can read the software licenses in the on-screen display menu. Refer to "Information" > "Software License".

Software composition
The software included in this product is comprised of various software components whose individual copyrights are held by SHARP or by third parties.

Cautions regarding use in high and low temperature environments

- When the unit is used in a low temperature space (e.g. room, office), the picture may leave trails or appear slightly delayed. This is not a malfunction, and the unit will recover when the temperature returns to normal.
- Do not leave the unit in a hot or cold location. Also, do not leave the unit in a location exposed to direct sunlight or near a heater, as this may cause the cabinet to deform and the front panel to malfunction.
  Storage temperature: -4°F to +140°F (-20°C to +60°C)

Specifications

TV

Item			Model: LC-70UD27U	Model: LC-60UD27U
LCD panel	Size		70" Class (69 1/2" Diagonal)	60" Class (60 3/32" Diagonal)
	Resolution		8,294,400 pixels (3,840 x 2,160)	
TV Function	TV-standard (CCIR)		American TV Standard ATSC/NTSC System	
	Receiving Channel	VHF/UHF	VHF 2-13ch, UHF 14-69ch	
		CATV	1-135ch (non-scrambled channel only)	
		Digital Terrestrial Broadcast (8VSB)	2-69ch	
		Digital cable*1 (64/256 QAM)	1-135ch (non-scrambled channel only)	
	Audio multiplex		BTSC System	
Audio out			10W x 2 + 15W(WF)	
Terminals	Side	SD card slot	SD/SDHC memory card *2	
	Back panel vertical side	HDMI IN 1	HDMI in with HDCP, ARC	
		HDMI IN 2	HDMI in with HDCP	
		HDMI IN 3	HDMI in with HDCP, Audio in (Ø 3.5 mm stereo jack)	
		HDMI IN 4	HDMI in with HDCP, MHL (HDCP2.2 supported)	
		AUDIO OUT	Audio out (Ø 3.5 mm stereo jack)	
		USB 1	Photo/Music/Video mode, Software update, USB keyboard/mouse, Wallpaper Picture	
	Back panel surface side	COMPONENT IN/VIDEO IN	COMPONENT in/AV in	
		RS-232C	9-pin D-sub male connector	
	Back panel horizontal side	ANT/CABLE	75 Ω Unbalance, F Type x 1 for Analog (VHF/UHF/CATV) and Digital (AIR/CABLE)	
		AUDIO IN	Audio in (Ø 3.5 mm stereo jack)	
		DIGITAL AUDIO OUT	Optical Digital audio out x 1 (PCM/Dolby Digital)	
		ETHERNET	Network connector	
		USB 2	Photo/Music/Video mode, Software update, USB keyboard/mouse, Wallpaper Picture	
		USB 3	Photo/Music/Video mode, Software update, USB keyboard/mouse, Wallpaper Picture	
OSD language			English/French/Spanish	
Power Requirement			AC 120 V, 60 Hz	
On Mode Power			160 W	145 W
Power Consumption			300 W (0.5 W Standby with AC 120 V)	270 W (0.5 W Standby with AC 120 V)
Weight		TV + stand	90.4 lbs./41.0 kg	67.2 lbs./30.5 kg
		TV only	83.7 lbs./38.0 kg	60.6 lbs./27.5 kg
Dimensions (W x H x D)(inch)		TV + stand	61 25/64 x 37 1/64 x 13 25/32	53 19/32 x 32 9/16 x 13 25/32
		TV only	61 25/64 x 35 41/64 x 2 49/64	53 19/32 x 31 5/32 x 2 23/32
Operating temperature			+32°F to +104°F (0°C to +40°C)	

*1 Emergency alert messages via Cable are unreceivable.

*2 If you insert any card other than the SD/SDHC (class 6 or higher), it will not work.

- As part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

Specifications

Wireless LAN

Specification	
Standard	IEEE 802.11a/b/g/n
Frequency Band	2412-2484 MHz 5150-5850 MHz
Security	Static WEP (64/128 bit key Index 1 only) WPA-PSK (TKIP) WPA2-PSK (AES)
Modulation	DBPSK@1Mbps DQPSK@2Mbps CCK@5.5/11Mbps BPSK@6/9 Mbps QPSK@12/18Mbps 16-QAM@24Mbps 64-QAM@48/54Mbps and above, Rx up to 300Mbps

Specifications

Bluetooth

Specification	
Ver. name	Ver. 3.0+EDR
profile name	HID A2DP

IMPORTANT SAFETY INSTRUCTIONS

Bluetooth
Notes on Radio Wave Certification in the U.S.A. and Canada
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

"This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter."

FCC/INDUSTRY CANADA NOTICE
This device complies with Part 15 of FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.
This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exprosure rules. This equipment has very low levels of RF energy that are deemed to comply without testing of specific absorption ratio (SAR).

FCC CAUTION
Changes or modifications not expressly approved by Hosiden responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help.

This Class B digital apparatus complies with Canadian ICES-003
Le présent appareil est conforme aux la prtie 15 des règles de la FCC et CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'uitilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles les radioélectriques (RF) de la FCC lignes directrices d'exposition dans le Supplément C à OET65 et d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'IC. Cet équipement émet une énergie RF très faible qui est considérée conforme sans évaluation du débit d'absorption spécifique (DAS).

Cet appareil numérique de la classe B est conforme à la norme NMB-3 du Canada.

Trademarks

- SmartCentral is a registered trademark of Sharp Corporation.

- Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.

- The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

- The Wi-Fi CERTIFIED Logo is a certification mark of the Wi-Fi Alliance.
- The Wi-Fi Protected Setup Mark is a mark of the Wi-Fi Alliance.
- Wi-Fi CERTIFIED Miracast™ and Miracast™ are trademarks of Wi-Fi Alliance.

- This product includes Home Networking Software 'DiXiM' developed by DigiOn, Inc.

- ＬＣフォント、ＬＣＦＯＮＴ、エルシーフォント and LC logo mark are registered trademarks of SHARP Corporation.
  This product is embedded with LC Font technology, which was developed by SHARP Corporation for clearly displaying easy-to-read characters on LCD screens. However, other fonts are used for some screen pages, too.

- Netflix and the Netflix logo are the registered trademarks of Netflix, Inc.

- VUDU™ is a trademark of VUDU, Inc.

- SDHC Logo is a trademark of SD-3C, LLC.

- MHL, the MHL Logo, and Mobile High-Definition Link are trademarks or registered trademarks of MHL LLC in the United States and other countries.
- MHL™

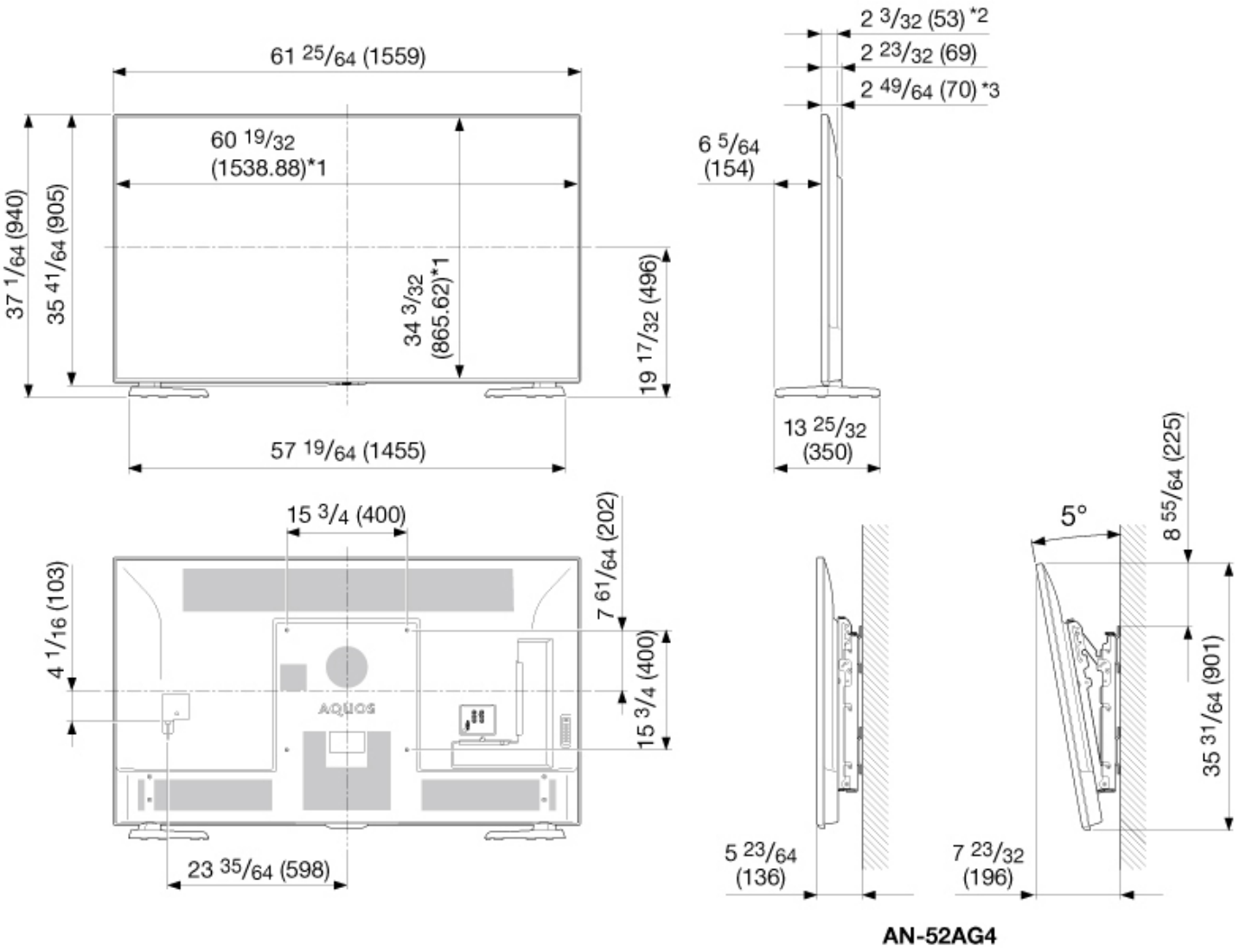
- The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by SHARP Corporation is under license. Other trademarks and trade names are those of their respective owners.

- THX and the THX logo are trademarks of THX Ltd., registered in the United States and other jurisdictions. All rights reserved.

Dimensional Drawings

LC-70UD27U

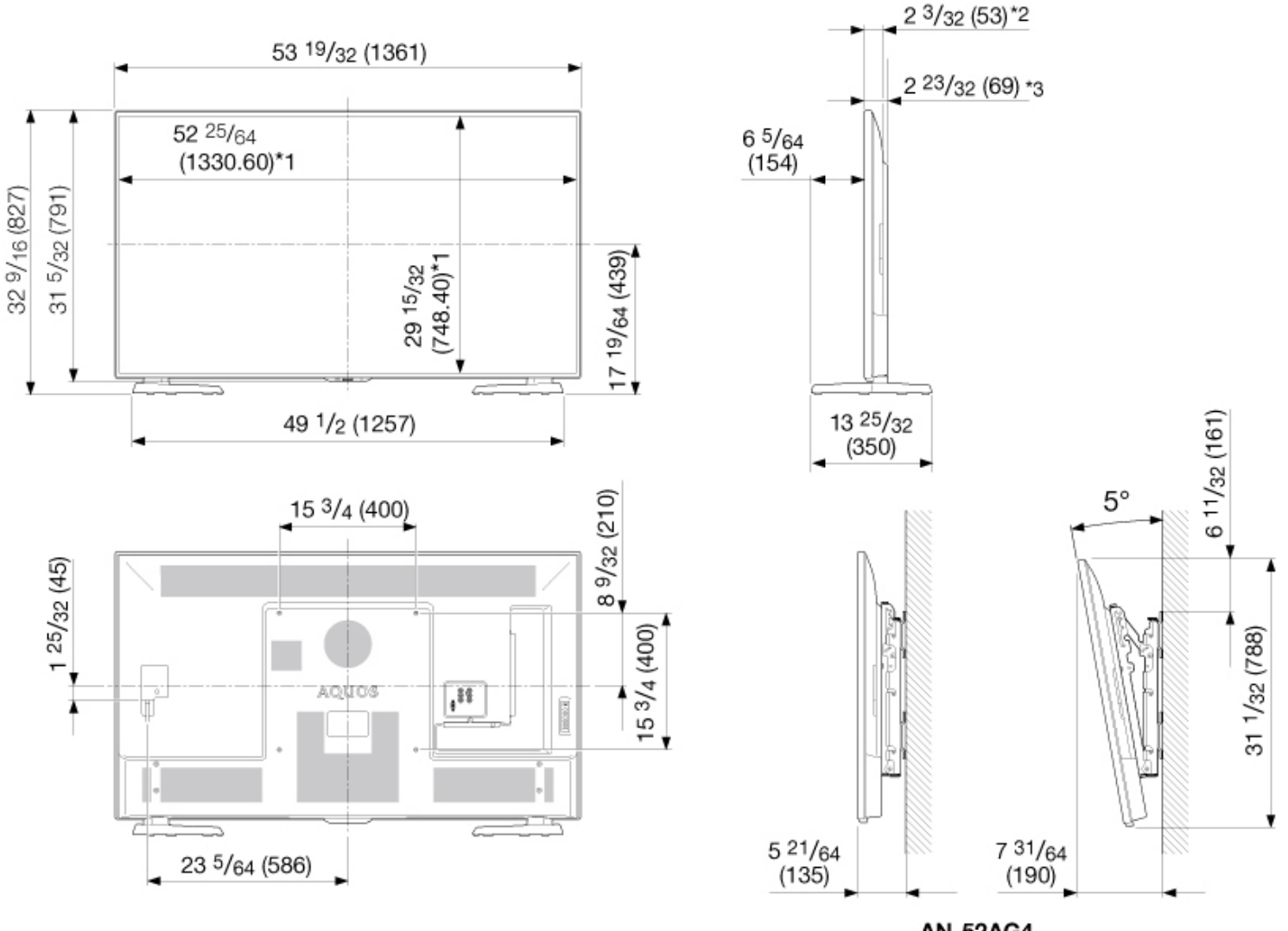
Unit: inch (mm)
Unité: pouce (mm)
Unidad: pulgada (mm)



*1 Active area/Área activa/Zone active
*2 Thinnest part/Parte más delgada/Partie la plus mince
*3 Including projecting parts/Incluyendo partes salientes/Parties saillantes incluses

Dimensional Drawings

LC-60UD27U



AN-52AG4

*1 Active area/Área activa/Zone active
*2 Thinnest part/Parte más delgada/Partie la plus mince
*3 Including projecting parts/Incluyendo partes salientes/Parties saillantes incluses

Unit: inch (mm)
Unité: pouce (mm)
Unidad: pulgada (mm)

SHARP ELECTRONICS CORPORATION
1 Sharp Plaza, Suite 1, Mahwah, New Jersey 07495-1123

SHARP CORPORATION

SHARP

AQUOS

LIQUID CRYSTAL TELEVISION
TÉLÉVISEUR À CRISTAUX LIQUIDES
TELEVISOR DE CRISTAL LÍQUIDO

Setup Guide
Guide de Setup
Guía de Configuración

LC-70UD27U
LC-60UD27U

ENGLISH
FRANÇAIS
ESPAÑOL

NOM 1245 NYCE

IMPORTANT : Please read this setup guide and built-in operation manual before starting operating the equipment.
IMPORTANT : Veuillez lire ce guide de setup et le mode d'emploi intégré avant de commencer à travailler sur l'équipement.
IMPORTANTE : Lea detenidamente esta guía de configuración y manual de instrucciones integrado antes de comenzar a usar el equipo.

TINS-G254WJZZ

Ultra HD 3840 x 2160 HDTV DOLBY DIGITAL PLUS HDMI

SmartCentral™ Wi Fi CERTIFIED Wi-Fi PROTECTED SETUP SDHC THX 4K DISPLAY

ENGLISH

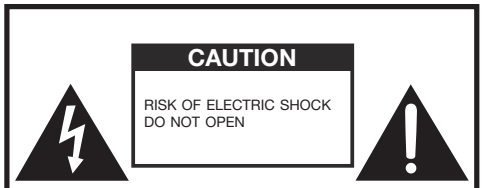
IMPORTANT INFORMATION

IMPORTANT:
To aid reporting in case of loss or theft, please record the TV's model and serial numbers in the space provided.
The numbers are located at the rear and left side of the TV.

Model No.:

Serial No.:

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrow-head symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within a triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

WARNING: FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

CAUTION: This product satisfies FCC regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances such as radios and televisions, use shielded cables and connectors for connections.

DECLARATION OF CONFORMITY:
SHARP LIQUID CRYSTAL TELEVISION, MODEL LC-70UD27U/LC-60UD27U
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
RESPONSIBLE PARTY:
SHARP ELECTRONICS CORPORATION
1 Sharp Plaza, Suite 1, Mahwah, New Jersey 07495-1123
TEL: 1-800-BE-SHARP
For Business Customers: URL http://www.sharpusa.com

INFORMATION:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio/TV technician for help.

IMPORTANT INFORMATION

FCC Compliance Statement
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Wireless Radio
For product available in the USA/Canada market, only channel 1–11 can be operated. Selection of other channels is not possible. This device is going to be operated in 5.15–5.25GHz frequency range, it is restricted in indoor environment only.
Important: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
FCC Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Industry Canada Statement
This Class B digital apparatus complies with CAN ICES-003(B)/NMB-3(B)

Wireless Radio
For product available in the USA/Canada market, only channel 1–11 can be operated. Selection of other channels is not possible.
The device could automatically discontinue transmission in case of absence of information to transmit, or operational failure.
Note that this is not intended to prohibit transmission of control or signaling information or the use of repetitive codes where required by the technology.
Important: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
IC Radiation Exposure Statement: This device complies with IC RSS-210 rules; Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept interference recieved, including interference that may cause undesired operation.

"Note to CATV system installer: This reminder is provided to call the CATV system installer's attention to Article 820 of the National Electrical Code that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical."

DEAR SHARP CUSTOMER

Thank you for your purchase of the Sharp Liquid Crystal Television. To ensure safety and many years of trouble-free operation of your product, please read the Important Safety Instructions carefully before using this product.

IMPORTANT SAFETY INSTRUCTIONS

Electricity is used to perform many useful functions, but it can also cause personal injuries and property damage if improperly handled. This product has been engineered and manufactured with the highest priority on safety. However, improper use can result in electric shock and/or fire. In order to prevent potential danger, please observe the following instructions when installing, operating and cleaning the product. To ensure your safety and prolong the service life of your Liquid Crystal Television, please read the following precautions carefully before using the product.

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with dry cloth.
7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11) Only use attachments/accessories specified by the manufacturer.
12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.
14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

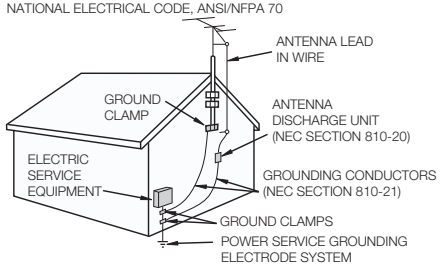
Additional Safety Information

15) Power Sources—This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
16) Overloading—Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
17) Object and Liquid Entry—Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
18) Damage Requiring Service—Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    a) When the AC cord or plug is damaged,
    b) If liquid has been spilled, or objects have fallen into the product,
    c) If the product has been exposed to rain or water,
    d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation,
    e) If the product has been dropped or damaged in any way, and
    f) When the product exhibits a distinct change in performance - this indicates a need for service.
19) Replacement Parts—When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
20) Safety Check—Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
21) Wall or ceiling mounting—When mounting the product on a wall or ceiling, be sure to install the product according to the method recommended by the manufacturer.

IMPORTANT SAFETY INSTRUCTIONS

- Outdoor Antenna Grounding — If an outside antenna is connected to the television equipment, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges.
  Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE, ANSI/NFPA 70


ANTENNA LEAD IN WIRE
GROUND CLAMP
ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)
ELECTRIC SERVICE EQUIPMENT
GROUNDING CONDUCTORS (NEC SECTION 810-21)
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250)

NEC — NATIONAL ELECTRICAL CODE

- Water and Moisture — Do not use this product near water - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
- Stand — Do not place the product on an unstable cart, stand, tripod or table. Placing the product on an unstable base can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. When mounting the product on a wall, be sure to follow the manufacturer's instructions. Use only the mounting hardware recommended by the manufacturer.
- Selecting the location — Select a place with no direct sunlight and good ventilation.
- Ventilation — The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.
- The front panel used in this product is made of glass. Therefore, it can break when the product is dropped or applied with impact. Be careful not to be injured by broken glass pieces in case the panel breaks.
- Heat — The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.
- The Liquid Crystal panel is a very high technology product with 8,294,400 pixels, giving you fine picture details.Occasionally, a few non-active pixels may appear on the screen as a fixed point of blue, green or red. Please note that this does not affect the performance of your product.
- Lightning — For added protection for this television equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the equipment due to lightning and power-line surges.
- Power Lines — An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
- To prevent fire, never place any type of candle or flames on the top or near the TV set.
- To prevent fire or shock hazard, do not place the AC cord under the TV set or other heavy items.

IMPORTANT SAFETY INSTRUCTIONS

- Do not display a still picture for a long time, as this could cause an afterimage to remain.
- To prevent fire or shock hazard, do not expose this product to dripping or splashing. No objects filled with liquids, such as vases, should be placed on the product.
- Do not insert foreign objects into the product. Inserting objects in the air vents or other openings may result in fire or electric shock. Exercise special caution when using the product around children.

Precautions when transporting the TV

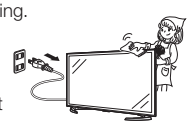
- When transporting the TV, never carry it by holding or otherwise putting pressure onto the display. Be sure to always carry the TV by two people holding it with two hands.

Caring for the cabinet

- Use a soft cloth (cotton, flannel, etc.) and gently wipe the surface of the cabinet.
- Using a chemical cloth (wet/dry sheet type cloth, etc.) may deform the components of the main unit cabinet or cause cracking.
- Wiping with a hard cloth or using strong force may scratch the surface of the cabinet.
- If the cabinet is very dirty, wipe with a soft cloth (cotton, flannel, etc.) soaked in neutral detergent diluted with water and thoroughly wrung out, and then wipe with a soft dry cloth.
- Avoid using benzene, thinner, and other solvents, as these may deform the cabinet and cause the paint to peel off.
- Do not apply insecticides or other volatile liquids.
  Also, do not allow the cabinet to remain in contact with rubber or vinyl products for a long period of time. Plasticizers inside the plastic may cause the cabinet to deform and cause the paint to peel off.

Caring for the front panel

- Turn off the main power and unplug the AC cord from the wall outlet before handling.
- Gently wipe the surface of the front panel with a soft cloth (cotton, flannel, etc.).
  To protect the front panel, do not use a dirty cloth, liquid cleaners, or a chemical cloth (wet/dry sheet type cloth, etc.). This may damage the surface of the front panel.
- Wiping with a hard cloth or using strong force may scratch the surface of the front panel.
- Use a soft damp cloth to gently wipe the front panel when it is really dirty.(It may scratch the surface of the front panel when wiped strongly.)
- If the front panel is dusty, use an anti-static brush, which is commercially available, to clean it.
- To avoid scratching the frame or screen, please use a soft, lint free cloth for cleaning. Approved cleaning cloths are available directly from Sharp in single (00Z-LCD-CLOTH) or triple (00Z-LCD-CLOTH-3) packs. Call 1-800-BE-SHARP for ordering, or VISIT http://www.sharpusa.com/SharpDirect.



CHILD SAFETY:

PROPER TELEVISION PLACEMENT MATTERS

THE CONSUMER ELECTRONICS INDUSTRY CARES

- Manufacturers, retailers and the rest of the consumer electronics industry are committed to making home entertainment safe and enjoyable.
- As you enjoy your television, please note that all televisions – new and old- must be supported on proper stands or installed according to the manufacturer's recommendations. Televisions that are inappropriately situated on dressers, bookcases, shelves, desks, speakers, chests, carts, etc., may fall over, resulting in injury.

TUNE IN TO SAFETY

- **ALWAYS** follow the manufacturer's recommendations for the safe installation of your television.
- **ALWAYS** read and follow all instructions for proper use of your television.
- **NEVER** allow children to climb on or play on the television or the furniture on which the television is placed.
- **NEVER** place the television on furniture that can easily be used as steps, such as a chest of drawers.
- **ALWAYS** install the television where it cannot be pushed, pulled over or knocked down.
- **ALWAYS** route cords and cables connected to the television so that they cannot be tripped over, pulled or grabbed.

WALL OR CEILING MOUNT YOUR TELEVISION

- **ALWAYS** contact your retailer about professional installation if you have any doubts about your ability to safely mount your television.
- **ALWAYS** use a mount that has been recommended by the television manufacturer and has a safety certification by an independent laboratory (such as UL, CSA, ETL).
- **ALWAYS** follow all instructions supplied by the television and mount manufacturers.
- **ALWAYS** make sure that the wall or ceiling where you are mounting the television is appropriate.
  Some mounts are not designed to be mounted to walls and ceilings with steel studs or cinder block construction. If you are unsure, contact a professional installer.
- Televisions can be heavy. A minimum of two people is required for a wall or ceiling mount installation.

MOVING AN OLDER TELEVISION TO A NEW PLACE IN YOUR HOME

- Many new television buyers move their older CRT televisions into a secondary room after the purchase of a flat-panel television. Special care should be made in the placement of older CRT televisions.
- **ALWAYS** place your older CRT television on furniture that is sturdy and appropriate for its size and weight.
- **NEVER** place your older CRT television on a dresser where children may be tempted to use the drawers to climb.
- **ALWAYS** make sure your older CRT television does not hang over the edge of your furniture.

CE.org/safety

CEA Consumer Electronics Association

IMPORTANT SAFETY INSTRUCTIONS

Wireless LAN

This TV has received the following certifications.
- Wi-Fi CERTIFIED™ (certification program from the Wi-Fi Alliance®)
- Wi-Fi Protected Setup™ (certification program from the Wi-Fi Alliance®)

FCC
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. To comply with the FCC RF exposure compliance
requirements, this device and its antenna must not be co-located or operated in conjunction with any other antenna or transmitter.
The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems;
The maximum antenna gain permitted (for devices in the bands 5250-5350 MHz and 5470-5725 MHz) to comply with the e.i.r.p. limit; and High-power radars are allocated as primary users (meaning they have priority) of the bands 5250-5350 MHz and 5650-5850 MHz and these radars could cause interference and/or damage to LE-LAN devices.

IFETEL
This equipment operates on a secondary basis and, consequently, must accept harmful interference, including from station of the same kind, and may not cause harmful interference to systems operating on a primary basis.
CONTAINS TRANSMITTER MODULE IFETEL ID: RCPSHDH13-2254
Brand: SHARP
Model: DHUB-SP1

IMPORTANT SAFETY INSTRUCTIONS

Bluetooth

Notes on Radio Wave Certification in the U.S.A. and Canada

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

"This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter."

FCC/INDUSTRY CANADA NOTICE
This device complies with Part 15 of FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.
This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exprosure rules. This equipment has very low levels of RF energy that are deemed to comply without testing of specific absorption ratio (SAR).

FCC CAUTION
Changes or modifications not expressly approved by Hosiden responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
Reorient or relocate the receiving antenna.
Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
Consult the dealer or an experienced radio/TV technician for help.

This Class B digital apparatus complies with Canadian ICES-003

Le présent appareil est conforme aux la prtie 15 des règles de la FCC et CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'uitilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles les radioélectriques (RF) de la FCC lignes directrices d'exposition dans le Supplément C à OET65 et d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'IC. Cet équipement émet une énergie RF très faible qui est considérée conforme sans évaluation du débit d'absorption spécifique (DAS).

Cet appareil numérique de la classe B est conforme à la norme NMB-3 du Canada.

■ TV

Notas sobre la Certificación de Radiodifusión en México

- IFETEL: RCPSHDH13-2254
- Nombre de la marca del módulo con licencia: SHARP CORPORATION
- Nombre de modelo del módulo con licencia: ARC0517
- Módulo ARC0517 instalado adentro de esta gafas

PRECAUCIÓN

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

Número de licencia para la certificación de radiodifusión

Estados Unidos CONTAINS FCC ID: NKR-SP1
Canadá CONTAINS IC: 4441A-SP1

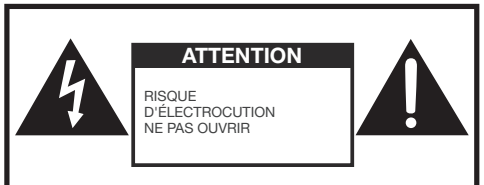
INFORMATIONS IMPORTANTES

IMPORTANT :
Pour faciliter la déclaration de perte ou de vol, veuillez noter les numéros de modèle et de série dans l'espace prévu à cet effet. Identifiez les numéros sur le côté du téléviseur où se trouve le panneau de commande.

N° de modèle :

N° de série:

AVERTISSEMENT: POUR RÉDUIRE LES RISQUES D'INCENDIE OU D'ÉLECTROCUTION, N'EXPOSEZ PAS CET APPAREIL À LA PLUIE OU À L'HUMIDITÉ.



ATTENTION: AFIN DE RÉDUIRE LE RISQUE D'ÉLECTROCUTION, NE PAS RETIRER LE COUVERCLE (OU PANNEAU ARRIÈRE).
PAS DE PIÈCES RÉPARABLES PAR L'UTILISATEUR À L'INTÉRIEUR.
CONFIER TOUTE PROCÉDURE D'ENTRETIEN À UN PERSONNEL D'ENTRETIEN QUALIFIÉ.

Ce symbole (éclair dans un triangle équilatéral) avertit l'utilisateur de la présence dans le boîtier de l'appareil d'une « tension dangereuse » non isolée suffisamment élevée pour causer une électrocution aux personnes.

Ce symbole (point d'exclamation dans un triangle équilatéral) avertit l'utilisateur de la présence d'instructions d'utilisation et d'entretien (dépannage) importantes dans la documentation accompagnant l'appareil.

ATTENTION: POUR NE PAS RISQUER UNE ÉLECTROCUTION, PRÉSENTEZ LA FICHE AVEC SA LAME LA PLUS LARGE FACE À LA FENTE CORRESPONDANTE DE LA PRISE ET ENFONCEZ-LA À FOND.

AVERTISSEMENT: Les règles de la FCC stipulent que tout changement ou modification apporté(e) à cet appareil sans l'autorisation expresse du fabricant peut entraîner la révocation du droit de l'utilisateur d'utiliser cet appareil.

ATTENTION:
Cet appareil est conforme aux règlements FCC lorsque des câbles et connecteurs blindés sont utilisés pour le brancher sur un autre appareil. Pour éviter les interférences électromagnétiques avec les appareils électriques comme les radios et les téléviseurs, utilisez des câbles et connecteurs blindés pour les connexions.

DÉCLARATION DE CONFORMITÉ:
TÉLÉVISION À ÉCRAN À CRISTAUX LIQUIDES SHARP, MODÈLE LC-70UD27U/LC-60UD27U
Cet appareil est conforme à la partie 15 des règlements FCC. Son fonctionnement est soumis aux deux conditions suivantes : (1) l'appareil ne provoquera pas d'interférences nuisibles, et (2) il doit accepter les interférences reçues, y compris celles pouvant provoquer un fonctionnement indésiré.
PARTIE RESPONSABLE :
SHARP ELECTRONICS CORPORATION
1 Sharp Plaza, Suite 1, Mahwah, New Jersey 07495-1123
TEL: 1-800-BE-SHARP
Pour la clientèle commerciale : URL http://www.sharpusa.com

INFORMATION:
Cet appareil a été testé et trouvé conforme aux limites des appareils numériques de classe B, conformément à l'article 15 du règlement FCC. Ces limites sont conçues pour offrir une protection raisonnable contre les interférences nuisibles dans une installation résidentielle. Cet appareil génère, utilise et peut émettre de l'énergie de radiofréquence et, s'il n'est pas installé et utilisé conformément aux instructions, peut provoquer des interférences nuisibles aux communications radio. Cependant, il n'y a aucune garantie que de telles interférences ne se produisent pas pour une installation particulière. Si cet appareil provoque des interférences nuisibles à la réception radio ou télévisée, ce qui peut être déterminé en mettant l'appareil hors et sous tension, vous êtes encouragé à essayer de corriger ces interférences à l'aide de l'une ou de plusieurs des mesures suivantes :
—— Réorientez ou déplacez l'antenne réceptrice.
—— Augmentez l'espace entre l'appareil et le récepteur.
—— Connectez l'appareil sur une prise secteur appartenant à un circuit différent de celui sur lequel le récepteur est connecté.
—— Consultez votre revendeur ou un technicien radio/télévisé.

INFORMATIONS IMPORTANTES

Déclaration de conformité de la FCC
Cet appareil est conforme à la partie 15 des règlements FCC. Son fonctionnement est soumis aux deux conditions suivantes : (1) l'appareil ne provoquera pas d'interférences nuisibles, et (2) il doit accepter les interférences reçues, y compris celles pouvant provoquer un fonctionnement indésiré.

Radio sans fil
Pour le produit disponible sur le marché des États-Unis/du Canada, seuls les canaux 1 à 11 peuvent être utilisés. La sélection d'autres canaux est impossible.
Cet appareil étant utilisé dans la plage de fréquences de 5,15 à 5,25 GHz, son utilisation est limitée exclusivement à un environnement intérieur.
I**mportant :** Tout changement ou modification non expressément homologué par la partie responsable de la conformité peut annuler le droit de l'utilisateur à utiliser l'équipement.
Déclaration d'exposition aux rayonnements de la FCC : Cet appareil est conforme aux limites d'exposition aux rayonnements définies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre l'élément rayonnant et votre corps.

Déclaration d'Industrie Canada
Cet appareil numérique de la classe B est conforme à la norme CAN ICES-003(B)/NMB-3(B)

Radio sans fil
Pour le produit disponible sur le marché des États-Unis/du Canada, seuls les canaux 1 à 11 peuvent être utilisés. La sélection d'autres canaux est impossible.
Cet appareil pourrait interrompre automatiquement une émission en cas d'absence d'informations à émettre ou de dysfonctionnement.
Veuillez noter qu'il n'est pas destiné à interdire des émissions de commande ou des informations de signalisation ni l'utilisation de codes répétitifs s'ils s'avèrent requis par la technologie.
I**mportant :** Tout changement ou modification non expressément homologué par la partie responsable de la conformité peut annuler le droit de l'utilisateur à utiliser l'équipement.
Déclaration d'exposition aux rayonnements d'IC : Cet appareil est conforme aux règlements CNR-210 de l'IC. Son fonctionnement est soumis aux deux conditions suivantes :
(1) l'appareil ne provoquera pas d'interférences nuisibles, et (2) il doit accepter les interférences reçues, y compris celles pouvant provoquer un fonctionnement non désiré.

« Note à l'intention de l'installateur de télévision par câble : Nous attirons l'attention de l'installateur de télévision par câble sur l'article 820 du Code National de l'Électricité qui fournit des directives pour l'exécution correcte de la mise à la terre et spécifie notamment que la terre du câble doit être reliée au réseau de mise à la terre du bâtiment, le plus près possible du point d'entrée du câble. »

CHER CLIENT SHARP

Nous vous remercions pour votre achat de ce téléviseur à cristaux liquides Sharp. Pour en assurer la sécurité et le bon fonctionnement pendant de longues années, veuillez lire attentivement les consignes de sécurité importantes avant toute utilisation.

CONSIGNES DE SÉCURITÉ IMPORTANTES

L'électricité remplit de nombreuses fonctions utiles, mais si on l'utilise mal, elle peut occasionner des blessures et des dégâts matériels. Bien que la conception et la fabrication de ce produit aient été axées sur la sécurité, une mauvaise utilisation de l'appareil peut faire courir un risque d'électrocution et/ou d'incendie. Pour ne pas vous exposer à de tels dangers, respectez les consignes suivantes lorsque vous installez, utilisez ou nettoyez le téléviseur. Par mesure de sécurité et pour prolonger la durée de service de votre téléviseur à cristaux liquides, veuillez lire les précautions suivantes avant de l'utiliser :

1) Lisez ces instructions.
2) Conservez ces instructions.
3) Respectez les mises en garde.
4) Suivez toutes les instructions.
5) N'utilisez pas cet appareil à proximité de l'eau.
6) Nettoyez uniquement avec un chiffon sec.
7) Ne bloquez pas les ouvertures de ventilation. Installez l'appareil en respectant les instructions du fabricant.
8) N'installez pas l'appareil à proximité de sources de chaleur comme des radiateurs, des chauffages, des cuisinières ou d'autres appareils (y compris les amplificateurs) produisant de la chaleur.
9) Ne passez pas outre la caractéristique de sécurité de la fiche polarisée ou avec mise à la terre. Une fiche polarisée comprend deux lames dont une plus large que l'autre. Une fiche avec mise à la terre comprend deux lames et une troisième broche de terre. La lame la plus large ou la troisième broche est une mesure de sécurité. Si la fiche fournie ne rentre pas dans votre prise secteur, consultez un électricien pour remplacer la prise obsolète.
10) Assurez-vous que le cordon secteur ne puisse être piétiné ou pincé tout particulièrement au niveau des fiches, des prises de courant et aux points où il sort de l'appareil.
11) N'utilisez que des accessoires/fixations recommandés par le fabricant.
12) Placez l'appareil uniquement sur un chariot, un socle, un trépied, un support ou une table recommandé par le fabricant ou vendu avec l'appareil. Si vous utilisez un chariot, manoeuvrez avec précaution l'ensemble chariot/appareil afin d'empêcher toute blessure suite à un renversement.

13) Débranchez cet appareil pendant un orage ou lorsqu'il doit rester longtemps inutilisé.
14) Faites appel à un technicien qualifié pour tout dépannage. Un dépannage est requis lorsque l'appareil a été endommagé d'une façon ou d'une autre, comme lorsque le cordon secteur ou la fiche est endommagé, du liquide a été renversé sur l'appareil ou des objets sont tombés dans l'appareil, l'appareil a été exposé à la pluie ou à l'humidité, l'appareil ne fonctionne pas normalement ou l'appareil est tombé.

Informations de sécurité supplémentaires

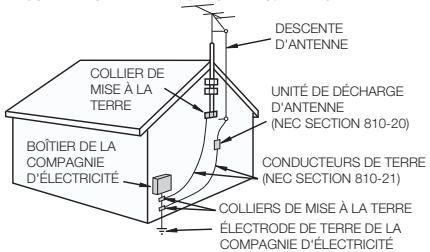
15) Alimentation électrique — Cet appareil ne doit être utilisé qu'avec l'alimentation spécifiée sur l'étiquette signalétique. En cas de doute sur le type de courant de votre domicile, consultez votre revendeur ou la compagnie d'électricité locale. Pour les appareils fonctionnant sur batteries ou sur tout autre type d'alimentation, consultez le mode d'emploi.
16) Surcharge électrique — Ne dépassez pas la capacité électrique des prises murales, des rallonges ou des prises de courant intégrales, ceci risquant de provoquer un incendie ou une électrocution.
17) Pénétration d'objets et de liquides — N'introduisez jamais d'objets par les orifices de cet appareil. Ils pourraient toucher des points sous tension et court-circuiter des pièces et provoquer ainsi un incendie ou une électrocution. Veillez également à ne jamais renverser de liquide dans l'appareil.
18) Dommages nécessitant une réparation — Dans les situations ci-dessous, débranchez l'appareil de la prise murale et faites appel à un technicien qualifié pour les réparations :
    a) si le cordon secteur ou la fiche est endommagée ;
    b) si du liquide a été renversé sur l'appareil ou si des objets sont tombés à l'intérieur ;
    c) si l'appareil a été exposé à la pluie ou à l'eau ;
    d) si l'appareil ne fonctionne pas normalement en suivant le mode d'emploi.
    Ne touchez qu'aux commandes indiquées dans le mode d'emploi. Un réglage incorrect d'autres commandes peut causer des dommages qui demanderont par la suite un travail intensif à un technicien qualifié.

CONSIGNES DE SÉCURITÉ IMPORTANTES

    e) si l'appareil est tombé ou a été endommagé ;
    f) Si l'appareil présente des changements visibles de performances – Ceci indique la nécessité d'une inspection d'entretien.
19) Pièces de rechange — Si des pièces sont à remplacer, assurez-vous que le technicien utilise bien les pièces de rechange prescrites par le fabricant ou ayant les mêmes caractéristiques que les pièces d'origine. L'utilisation de pièces non autorisées peut occasionner un incendie, une électrocution et d'autres dangers.
20) Vérification de sécurité — Après un travail d'entretien ou de réparation, demandez au technicien d'effectuer les vérifications de sécurité nécessaires pour s'assurer que l'appareil est en bon état de fonctionnement.
21) Montage au plafond ou au mur—Si vous montez l'appareil au mur ou au plafond, observez la procédure d'installation recommandée par le fabricant.

- Mise à la terre de l'antenne extérieure — Si le téléviseur est raccordé à une antenne extérieure, assurez-vous que celle-ci est reliée à la terre afin de protéger le poste contre les sautes de tension et l'accumulation de charges électrostatiques.
  L'article 810 du Code national de l'électricité ANSI/NFPA 70 fournit des informations sur la mise à la terre correcte du mât d'antenne et de sa structure de support, la mise à la terre de la descente d'antenne à une unité de décharge d'antenne, le calibre des conducteurs, l'emplacement de l'unité de décharge d'antenne, le raccordement aux électrodes de terre et les conditions requises pour l'électrode de terre.

EXEMPLE DE MISE À LA TERRE D'UNE ANTENNE SELON LE CODE NATIONAL DE L'ÉLECTRICITÉ ANSI/NFPA 70


DESCENTE D'ANTENNE
COLLIER DE MISE À LA TERRE
UNITÉ DE DÉCHARGE D'ANTENNE (NEC SECTION 810-20)
BOÎTIER DE LA COMPAGNIE D'ÉLECTRICITÉ
CONDUCTEURS DE TERRE (NEC SECTION 810-21)
COLLIERS DE MISE À LA TERRE
ÉLECTRODE DE TERRE DE LA COMPAGNIE D'ÉLECTRICITÉ (NEC ART. 250)

NEC — CODE NATIONAL DE L'ÉLECTRICITÉ

- Eau et humidité — N'utilisez pas l'appareil à proximité de l'eau, près d'une baignoire, d'un lavabo, d'un évier, d'une machine à laver, par exemple, ni dans un sous-sol humide ou à proximité d'une piscine.
- Support — Ne placez pas l'appareil sur un chariot, un support, un trépied ou une table instable. S'il est sur une base instable, l'appareil peut tomber et provoquer des blessures corporelles graves ou être endommagé. Utilisez uniquement un chariot, un support, un trépied ou une table recommandés par le fabricant ou vendus avec l'appareil. Pour monter l'appareil sur un mur, suivez les instructions du fabricant. N'utilisez que du matériel recommandé par ce dernier.
- Sélection de l'emplacement — Sélectionnez un emplacement bien aéré et éloigné de la lumière directe du soleil.
- Ventilation — Les évents et autres ouvertures du coffret sont destinés à la ventilation. Ne les recouvrez pas et ne les bloquez pas car une ventilation insuffisante risque de provoquer une surchauffe et/ou de réduire la durée de vie de l'appareil. Ne placez pas l'appareil sur un lit, un sofa, un tapis ou une autre surface similaire risquant de bloquer les ouvertures de ventilation. Ce produit n'est pas conçu pour être encastré ; ne le placez pas dans des endroits clos comme une bibliothèque ou une étagère, sauf si une ventilation adéquate est prévue ou si les instructions du fabricant sont respectées.
- Le panneau avant utilisé dans ce produit est en verre. Il peut donc se briser s'il tombe ou s'il subit un choc. Veillez à ne pas vous blesser avec des morceaux de verre si le panneau à cristaux liquides venait à se briser.
- Sources de chaleur — Éloignez l'appareil des sources de chaleur comme les radiateurs, les chauffages et les autres appareils produisant de la chaleur (y compris les amplificateurs).
- Le panneau à cristaux liquides est un appareil de très haute technologie avec 8 294 400 pixels qui vous offre une très grande finesse de détail. Un petit nombre de pixels non actifs peuvent occasionnellement apparaître à l'écran sous forme de point fixe bleu, vert ou rouge. Notez que cela n'affecte en rien les performances de l'appareil.
- Foudre — Pour mieux protéger ce téléviseur pendant un orage ou lorsqu'il doit rester longtemps sans surveillance et inutilisé, débranchez-le de la prise murale et déconnectez l'antenne. Ceci l'empêchera d'être endommagé par la foudre ou les surtensions de la ligne électrique.
- Lignes électriques — L'antenne extérieure ne doit pas se trouver à proximité de lignes électriques

CONSIGNES DE SÉCURITÉ IMPORTANTES

aériennes ou d'autres circuits d'éclairage ou de distribution électrique. Elle ne doit pas non plus être installée sur une position d'où elle pourrait tomber sur ces lignes ou circuits. Lors de l'installation d'une antenne extérieure, toutes les précautions doivent être prises pour ne pas toucher ces lignes ou circuits électriques. Tout contact avec eux pourrait être mortel.

- Ne placez pas de bougies ni de flammes nues sur le téléviseur ou à sa proximité, afin d'éviter les incendies.
- Afin d'empêcher tout incendie ou électrocution, ne placez pas le cordon secteur sous l'ensemble du téléviseur ou autres objets volumineux.
- N'affichez pas une image fixe pendant un période prolongée, sous peine de laisser un traînage à l'écran.
- Pour éviter les incendies ou les électrocutions, veillez à ne pas éclabousser ni faire tomber de l'eau sur cet appareil.
  Ne placez jamais d'objets remplis de liquide, comme des vases, sur l'appareil.
- N'introduisez pas d'objets étrangers dans le produit. L'introduction d'objets dans les évents ou dans d'autres ouvertures pourrait provoquer un incendie ou un choc électrique. Faites particulièrement attention lorsque vous utilisez le produit à proximité d'enfants.

Précautions lors du transport du téléviseur

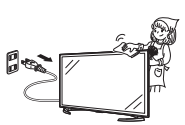
- Lors du transport du téléviseur, ne le transportez jamais en le tenant ou en faisant pression sur l'écran. Veillez à toujours le transporter à deux personnes, en le tenant à deux mains.

Entretien du coffret

- Utilisez un chiffon doux (en coton, en flanelle, etc.) et essuyez délicatement la surface du coffret.
- L'utilisation d'un chiffon abrasif (chiffon sous forme de feuille humide/sec, etc.) peut déformer les composants du coffret ou provoquer des fissures.
- Essuyer avec un chiffon rêche ou avec force risque de rayer la surface du coffret.
- Si le coffret est très sale, essuyez avec un chiffon doux (en coton, en flanelle, etc.) humidifié à l'aide d'un détergent neutre dilué avec de l'eau et bien essoré, puis essuyez avec un chiffon sec.
- Le coffret est essentiellement constitué de plastique. Évitez d'utiliser de la benzine, un diluant ou d'autres solvants, car ils pourraient déformer le coffret et provoquer l'écaillage de la peinture.
- N'appliquez pas d'insecticides ni d'autres liquides volatiles.
  De même, ne laissez pas le coffret en contact avec du caoutchouc ou des appareils en vinyle pendant longtemps. Les plastifiants à l'intérieur du plastique peuvent provoquer des déformations du coffret et l'écaillage de la peinture.

Entretien du panneau avant

- Mettez l'alimentation principale hors tension et débranchez le cordon secteur de la prise murale avant la manipulation.
- Essuyez délicatement la surface du panneau avant à l'aide d'un chiffon doux (en coton, en flanelle, etc.).
  Pour protéger le panneau avant, n'utilisez pas de chiffon sale, de nettoyants liquides ni chiffon imprégné de produit chimique (chiffon sous forme de feuille humide/sec, etc.). Ceci pourrait endommager la surface du panneau avant.
- Essuyer avec un chiffon rêche ou avec force risque de rayer la surface du panneau avant.
- Utilisez un chiffon doux et mouillé pour essuyer délicatement le panneau avant s'il est vraiment sale. (Frotter fort risque de rayer la surface du panneau avant.)
- Si le panneau avant est poussiéreux, utilisez une brosse antistatique en vente dans le commerce pour le nettoyer.
- Pour éviter tout risque de rayer le cadre ou l'écran, veuillez utiliser un chiffon doux et non-pelucheux pour le nettoyage. Des chiffons de nettoyage approuvés sont disponibles directement auprès de Sharp, par paquet d'une (00Z-LCD-CLOTH) ou de trois (00Z-LCD-CLOTH-3) unités. APPELEZ le (905)568-7140 ou CONSULTEZ le site http://www.sharp.ca pour les commander.



LA SÉCURITÉ DES ENFANTS :

L'IMPORTANCE D'UN EMPLACEMENT APPROPRIÉ POUR LE TÉLÉVISEUR

L'INDUSTRIE DE L'ÉLECTRONIQUE GRAND PUBLIC EST SOUCIEUSE DE VOTRE SÉCURITÉ

- Les fabricants, les détaillants et l'industrie de l'électronique grand public dans son ensemble sont déterminés à faire en sorte que le divertissement domestique soit sûr et plaisant.
- Alors que vous vous divertissez devant la télévision, n'oubliez pas que tous les téléviseurs, neufs comme anciens, doivent être : soit positionnés sur un socle approprié, soit installés selon les recommandations spécifiques du fabricant. Les téléviseurs placés de façon non appropriée sur des commodes, des bibliothèques, des étagères, des bureaux, des haut-parleurs, des armoires, des chariots, etc. peuvent tomber et entraîner des blessures.

RESTER À L'ÉCOUTE DE LA SÉCURITÉ

- Respectez **TOUJOURS** les recommandations du fabricant pour une installation sûre de votre téléviseur.
- Lisez et suivez **TOUJOURS** toutes les instructions données pour un bon usage de votre téléviseur.
- Ne permettez **JAMAIS** aux enfants de grimper ou de jouer sur le téléviseur ou le meuble sur lequel le téléviseur est placé.
- Ne placez **JAMAIS** le téléviseur sur un meuble pouvant facilement être utilisé comme marche-pied, telle qu'une commode par exemple.
- Installez **TOUJOURS** le téléviseur à un endroit où il ne peut pas être poussé, tiré ou renversé.
- Faites **TOUJOURS** passer les prises et câbles connectés au téléviseur à un endroit où ils ne pourront pas faire trébucher quelqu'un ou encore où ils ne pourront pas être tirés ou attrapés.

FIXATION DU TÉLÉVISEUR SUR LE MUR OU LE PLAFOND

- Contactez **TOUJOURS** votre revendeur pour une installation professionnelle au moindre doute quant à votre capacité à fixer le téléviseur de manière sûre.
- Utilisez **TOUJOURS** un support recommandé par le fabricant du téléviseur et dont la sécurité a été certifiée par un laboratoire indépendant (tel que UL, CSA, ETL).
- Suivez **TOUJOURS** toutes les instructions fournies par les fabricants du téléviseur et du support.
- Assurez-vous **TOUJOURS** que le mur ou le plafond sur lequel vous fixez le téléviseur est approprié.
  Certains supports ne sont pas conçus pour être fixés aux murs ou aux plafonds ayant une armature en acier ou construits avec des parpaings. En cas de doute, contactez un installateur professionnel.
- Les téléviseurs peuvent être lourds. Deux personnes minimum sont nécessaires pour la fixation au mur ou au plafond.

DÉPLACER UN ANCIEN TÉLÉVISEUR DANS VOTRE MAISON

- Nombreuses sont les personnes déplaçant leur ancien téléviseur CRT dans une autre pièce de la maison après l'achat d'un téléviseur à écran plat. Une attention particulière doit être portée au nouvel emplacement d'un ancien téléviseur CRT.
- Placez **TOUJOURS** votre ancien téléviseur CRT sur un meuble solide et adapté à la taille et au poids du téléviseur.
- Ne placez **JAMAIS** votre ancien téléviseur CRT sur une commode dont les enfants sont susceptibles d'utiliser les tiroirs pour grimper.
- Assurez-vous **TOUJOURS** que votre ancien téléviseur CRT ne dépasse pas le bord de votre meuble.

CE.org/safety

CEA Consumer Electronics Association

FRANÇAIS

CONSIGNES DE SÉCURITÉ IMPORTANTES

LAN sans-fil

Ce téléviseur a reçu les certifications suivantes.
- Wi-Fi CERTIFIED™ (programme de certification de Wi-Fi Alliance®)
- Wi-Fi Protected Setup™ (programme de certification de Wi-Fi Alliance®)

FCC
Cet appareil est conforme à la partie 15 des règlements FCC. Son fonctionnement est soumis aux deux conditions suivantes:
(1) l'appareil ne provoquera pas d'interférences nuisibles, et (2) il doit accepter les interférences reçues, y compris celles pouvant provoquer un fonctionnement indésiré. Les changements ou modifications non expressément homologués par la partie responsable de la conformité peuvent annuler le droit de l'utilisateur à utiliser l'équipement.
En vue de la conformité avec les exigences relatives à l'exposition aux FR de la FCC, cet appareil et l'antenne ne doivent pas se trouver au même endroit ni être utilisés conjointement avec une autre antenne ou un autre émetteur.
L'appareil conçu pour la bande 5150-5250 MHz est uniquement destiné à une utilisation en intérieur afin de réduire de possibles interférences nuisibles à des systèmes de satellites du service mobile à canal commun.
Le gain maximal autorisé de l'antenne (pour des appareils dans les bandes 5250-5350 MHz et 5470-5725 MHz) en conformité avec la limite PIRE; et les radars de haute puissance sont attribués comme utilisateurs principaux (c'est-à-dire qu'ils ont la priorité) sur les bandes 5250-5350 MHz et 5650-5850 MHz, et que ces radars peuvent provoquer des interférences et/ou des dommages aux appareils LE-LAN.

IFETEL
Cet equipement fonctionne a titre secondaire et, par consequent, peut accepter des interferences nuisibles, par exemple d'une station de meme type, et ne peut pas provoquer d'interferences nuisibles sur des systemes fonctionnant a titre primaire.
CONTIENT UN MODULE D'EMISSION IFETEL ID: RCPSHDH13-2254
Marque: SHARP
Modele: DHUB-SP1

CONSIGNES DE SÉCURITÉ IMPORTANTES

Bluetooth

Remarques sur la Certification des Ondes Radio aux Etats-Unis et au Canada

Cet appareil est conforme à la partie 15 des règlements FCC. Son fonctionnement est soumis aux deux conditions suivantes
(1) l'appareil ne provoquera pas d'interférences nuisibles, et (2) il doit accepter les interférences reçues, y compris celles pouvant provoquer un fonctionnement indésiré.

« Cet émetteur ne doit pas être installé ou utilisé conjointement avec une autre antenne ou un autre émetteur. »

FCC/DÉCLARATION D'INDUSTRIE CANADA
Ce dispositif est conforme à la partie 15 des règlements FCC et aux CNR exempts de licence d'Industrie Canada. Son fonctionnement est soumis aux deux conditions suivantes: (1) l'appareil ne provoquera pas d'interférences nuisibles, et (2) il doit accepter les interférences reçues, y compris celles pouvant provoquer un fonctionnement indésiré de l'appareil. Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé FCC/IC et respecte les lignes directrices d'exposition aux fréquences radioélectriques (RF) de la FCC dans le Supplément C à OET65 et les règles d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'IC. Cet équipement émet une énergie RF très faible qui est considérée conforme sans évaluation du débit d'absorption spécifi que (DAS).

AVERTISSEMENT FCC
Tout changement ou modifi cation non expressément homologué par Hosiden, responsable de la conformité, peut annuler le droit de l'utilisateur à utiliser l'équipement.

Remarque: Cet appareil a été testé et trouvé conforme aux limites des appareils numériques de classe B, conformément à l'article 15 du règlement FCC. Ces limites sont conçues pour offrir une protection raisonnable contre les interférences nuisibles dans une installation résidentielle. Cet appareil génère, utilise et peut émettre de l'énergie de radiofréquence et, s'il n'est pas installé et utilisé conformément aux instructions, peut provoquer des interférences nuisibles aux communications radio. Cependant, il n'y a aucune garantie que de telles interférences ne se produisent pas pour une installation particulière. Si cet appareil provoque des interférences nuisibles à la réception radio ou télévisée, ce qui peut être déterminé en mettant l'appareil hors et sous tension, vous êtes encouragé à essayer de corriger ces interférences à l'aide de l'une ou de plusieurs des mesures suivantes:
Réorientez ou déplacez l'antenne réceptrice.
Augmentez l'espace entre l'appareil et le récepteur.
Connectez l'appareil sur une prise secteur appartenant à un circuit différent de celui sur lequel le récepteur est connecté.
Consultez votre revendeur ou un technicien radio/télévisé.

Cet appareil numérique de la classe B est conforme à la norme CAN ICES-003

Le présent appareil est conforme aux la prtie 15 des règles de la FCC et CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'uitilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles les radioélectriques (RF) de la FCC lignes directrices d'exposition dans le Supplément C à OET65 et d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'IC. Cet équipement émet une énergie RF très faible qui est considérée conforme sans évaluation du débit d'absorption spécifique (DAS).

Cet appareil numérique de la classe B est conforme à la norme NMB-3 du Canada.

■ **Téléviseur**

Número de licencia para la certificación de radiodifusión

Estados Unidos CONTAINS FCC ID: NKR-SP1
Canadá CONTAINS IC: 4441A-SP1

INFORMACIÓN IMPORTANTE

IMPORTANTE:
Para facilitar el reporte en caso de pérdida o robo, escriba por favor el modelo del TV y los números de serie en el espacio suministrado. Los números se encuentran en la parte posterior y el lado izquierdo del televisor.

Modelo N°:

Serie N°:

ADVERTENCIA: PARA REDUCIR EL RIESGO DE FUEGO O DESCARGA ELÉCTRICA, NO EXPONGA ESTE PRODUCTO A LA LLUVIA O HUMEDAD.

El símbolo del relámpago con la flecha, dentro de un triángulo equilátero, sirve para alertar al usuario de la presencia de "voltaje peligroso" en el interior del producto que puede ser de suficiente magnitud como para constituir riesgo de descarga eléctrica a las personas.

PRECAUCIÓN: PARA REDUCIR EL RIESGO DE DESCARGA ELÉCTRICA,
NO RETIRE LA CUBIERTA (O LA PARTE TRASERA).
NO HAY PARTES INTERNAS PARA SERVICIO POR PARTE DEL USUARIO.
DEJE EL SERVICIO A PERSONAL DE SERVICIO CUALIFICADO.

El signo de exclamación dentro de un triángulo sirve para alertar al usuario de la presencia de importantes instrucciones en la operación y mantenimiento (servicio) en la literatura que acompaña el producto.

PRECAUCIÓN: PARA PREVENIR UNA DESCARGA ELÉCTRICA, HAGA COINCIDIR LA LÁMINA ANCHA DEL ENCHUFE CON LA RANURA ANCHA, E INSERTE COMPLETAMENTE.

ADVERTENCIA: Las regulaciones de la FCC señalan que cualquier cambio o modificación no autorizado en este equipo, los cuales no hayan sido expresamente aprobados por el fabricante, podría anular la autorización del usuario para utilizar este equipo.

PRECAUCIÓN:
Este producto satisface los reglamentos de la FCC cuando se utilizan conectores y cables blindados para conectar la unidad a otro equipo. Para impedir las interferencias electromagnéticas con aparatos eléctricos tales como radios y televisores, utilice conectores y cables blindados para hacer las conexiones.

DECLARACIÓN DE CONFORMIDAD:
TELEVISOR CON PANTALLA DE CRISTAL LÍQUIDO SHARP, MODELO LC-70UD27U/LC-60UD27U
Este dispositivo cumple con el Apartado 15 de las Normas FCC. Su funcionamiento está sujeto a las dos condiciones siguientes: (1) Este dispositivo no deberá causar interferencias perjudiciales, y (2) deberá aceptar cualquier interferencia que reciba, incluyendo interferencias que puedan causar un funcionamiento no deseado.
PARTE RESPONSABLE:
SHARP ELECTRONICS CORPORATION
1 Sharp Plaza, Suite 1, Mahwah, New Jersey 07495-1123
TEL: 1-800-BE-SHARP
Para clientes de negocios: URL http://www.sharpusa.com

INFORMACIÓN:
Este equipo ha sido probado y ha demostrado cumplir con los límites establecidos para los aparatos digitales de la Clase B, de conformidad con el Apartado 15 de las Normas de la FCC. Estos límites han sido designados para proporcionar una protección razonable contra la interferencia perjudicial en una instalación residencial. Este equipo genera, utiliza y puede radiar energía radioeléctrica, y, si no se instala y utiliza de acuerdo con las instrucciones, puede causar una interferencia perjudicial en las comunicaciones por radio. Sin embargo, no hay ninguna garantía de que no se produzcan interferencias en una instalación particular. Si este equipo causa interferencias perjudiciales en las recepciones de radio o televisión, lo que puede determinarse fácilmente apagando y encendiendo el equipo, al usuario se le recomienda corregir la interferencia tomando una o más de las medidas siguientes:
—— Cambie la orientación o el lugar de instalación de la antena receptora.
—— Aumente la separación entre el equipo y el receptor.
—— Conecte el equipo a una toma de corriente de un circuito diferente del aquel al que está conectado el receptor.
—— Consulte al concesionario o técnico de radio/TV cualificado para solicitar su ayuda.

INFORMACIÓN IMPORTANTE

Declaración de conformidad con la FCC
Este dispositivo cumple con el Apartado 15 de las Normas FCC. Su funcionamiento está sujeto a las dos condiciones siguientes:
(1) Este dispositivo no deberá causar interferencias perjudiciales, y (2) deberá aceptar cualquier interferencia que reciba, incluyendo interferencias que puedan causar un funcionamiento no deseado.

Radio inalámbrica
En el producto disponible en el mercado de EE.UU./Canadá sólo se pueden utilizar los canales 1-11. No se pueden seleccionar otros canales.
Este dispositivo se va a utilizar en el rango de frecuencias de 5,15 GHz a 5,25 GHz y su uso está restringido a entornos interiores.
Importante: Cualquier cambio o modificación no aprobado expresamente por la parte responsable de la conformidad podría anular la autorización del usuario para utilizar el equipo.
Declaración de exposición a las radiaciones de la FCC: Este equipo cumple con los límites de exposición a las radiaciones establecidos por la FCC para entornos no controlados. El equipo deberá instalarse y utilizarse con una distancia mínima de 20 cm entre el radiador y su cuerpo.

Declaración industrial de Canadá
Este aparato digital de clase B cumple con CAN ICES-003(B)/NMB-3(B)

Radio inalámbrica
En el producto disponible en el mercado de EE.UU./Canadá sólo se pueden utilizar los canales 1-11. No se pueden seleccionar otros canales.
El dispositivo podría interrumpir automáticamente la transmisión en caso de ausencia de información que transmitir o de fallo de funcionamiento.
Tenga en cuenta que el objetivo de esto no es prohibir la transmisión de información de control o de señalización ni el uso de códigos repetitivos cuando lo requiera la tecnología.
Importante: Cualquier cambio o modificación no aprobado expresamente por la parte responsable de la conformidad podría anular la autorización del usuario para utilizar el equipo.
Declaración de exposición a las radiaciones de IC: Este dispositivo cumple con las normas IC RSS-210; el funcionamiento está sujeto a las siguientes dos condiciones:
(1) Este dispositivo no deberá causar interferencias perjudiciales y (2) deberá aceptar las interferencias que reciba, incluyendo interferencias que puedan causar un funcionamiento no deseado.

"Nota al instalador del sistema de CATV: El instalador del sistema debe recordar el Articulo 820 del Código Nacional Eléctrico que contiene las guías de los conocimientos básicos y, en particular, especifica que el cable a tierra debe ser conectado al sistema de toma de tierra del edificio, lo más cerca posible al punto de entrada del cable como sea práctico."

ESTIMADO CLIENTE DE SHARP

Gracias por haber adquirido este televisor SHARP con pantalla de cristal líquido. Para garantizar su seguridad y muchos años de uso sin problemas de su producto, por favor lea cuidadosamente las instrucciones de seguridad importantes antes de usar este producto.

INSTRUCCIONES DE SEGURIDAD IMPORTANTES

La electricidad se usa para realizar muchas funciones útiles, pero también puede causar lesiones en personas y daños en la propiedad si se utiliza incorrectamente. Este producto ha sido diseñado y fabricado con la más alta prioridad en la seguridad. Sin embargo, su uso incorrecto puede provocar descargas eléctricas y/o incendios. Para evitar peligros potenciales, por favor tenga muy en cuenta las instrucciones siguientes al instalar, operar y limpiar el producto. Para garantizar su seguridad y prolongar la duración de su televisor con pantalla de cristal líquido, lea cuidadosamente las precauciones siguientes antes de utilizarlo.

1) Lea estas instrucciones.
2) Guarde estas instrucciones.
3) Preste atención a todas las advertencias.
4) Siga todas las instrucciones.
5) No utilice este aparato cerca del agua.
6) Límpielo solamente con un paño seco.
7) No tape las aberturas de ventilación. Instale el aparato de acuerdo con las instrucciones del fabricante.
8) No instale el aparato cerca de ninguna fuente de calor como, por ejemplo, radiadores, salidas de aire caliente, estufas u otros aparatos (incluyendo amplificadores) que produzcan calor.
9) No anule la seguridad de la clavija polarizada ni la de la clavija con conexión a tierra. Una clavija polarizada tiene dos patillas, una más ancha que la otra. Una clavija con conexión a tierra tiene dos patillas y una espiga de conexión a tierra. La patilla ancha y la espiga se proporcionan para su seguridad. Si la clavija proporcionada no entra en su toma de corriente, consulte a un electricista para reemplazar la toma de corriente obsoleta.
10) Proteja el cable de alimentación para que nadie lo pise ni quede aplastado, especialmente en las clavijas, tomas de corriente y puntos por donde sale del aparato.
11) Utilice solamente los accesorios suministrados por el fabricante.
12) Utilice el aparato solamente con el carrito, soporte, trípode, ménsula o mesa especificado por el fabricante, o vendido con el propio aparato. Cuando utilice un carrito, tenga cuidado cuando mueva la combinación del carrito y el aparato para evitar que se caigan y se estropeen.

13) Desenchufe este aparato durante las tormentas eléctricas o cuando no lo utilice durante largos periodos de tiempo.
14) Solicite todos los trabajos de reparación al personal cualificado solamente. Las reparaciones serán necesarias cuando se haya dañado el aparato de cualquier forma: cuando se haya estropeado el cable o la clavija de alimentación, se hayan derramado líquidos o hayan caído objetos en el interior del aparato, cuando éste haya estado expuesto a la lluvia o a la humedad, cuando no funcione normalmente o cuando se haya caído.

Información de seguridad adicional

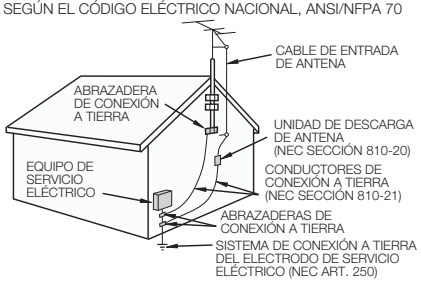
15) Fuentes de energía — Este producto deberá utilizarse solamente con el tipo de fuente de energía indicado en la etiqueta de especificaciones. Si no está seguro del tipo de suministro de energía de su casa, consulte a su distribuidor o a la compañía de electricidad de su localidad. Para los productos diseñados para funcionar con pilas u otra fuente de energía, consulte las instrucciones de operación.
16) Sobrecarga — No sobrecargue las tomas de corriente, los cables de prolongación o los receptáculos de conveniencia integrales porque se puede correr el riesgo de causar un incendio o recibir una descarga eléctrica.
17) Entrada de objetos y líquidos — No meta nunca objetos de ninguna clase en este producto a través de las aberturas porque pueden tocar puntos de alto voltaje peligrosos o cortocircuitar partes que podrían causar un incendio o una descarga eléctrica. No derrame nunca líquidos de ningún tipo sobre el producto.
18) Daños que necesitan ser reparados — Desenchufe este producto de la toma de corriente y solicite las reparaciones al personal de servicio cualificado cuando se den las condiciones siguientes:
    a) Cuando el cable o la clavija de CA está dañado.
    b) Si se ha derramado algún líquido o han caído objetos en el interior del producto.
    c) Si el producto ha sido expuesto a la lluvia o al agua.

INSTRUCCIONES DE SEGURIDAD IMPORTANTES

    d) Si el producto no funciona normalmente siguiendo las instrucciones de operación. Ajuste solamente aquellos controles descritos en las instrucciones de operación, ya que un ajuste incorrecto de otros controles podrá causar daños que a menudo requieren un arduo trabajo de ajuste por parte de un técnico cualificado para que el producto pueda volver a funcionar normalmente.
    e) Si el producto se ha caído o dañado de cualquier forma.
    f) Cuando el producto muestra un cambio notable en su rendimiento, lo que indica que necesita ser reparado.
19) Piezas de repuesto — Cuando se necesiten piezas de repuesto, asegúrese de que el técnico de servicio utilice las piezas de repuesto especificadas por el fabricante u otras cuyas características sean similares a las de las piezas originales. El uso de piezas no autorizadas puede causar incendios, descargas eléctricas u otros peligros.
20) Verificación de seguridad — Una vez completado cualquier trabajo de mantenimiento o reparación en este producto, pida al técnico de servicio que realice verificaciones de seguridad para determinar si el producto está en condiciones de funcionamiento apropiadas.
21) Montaje en la pared o en el techo — Cuando monte el producto en la pared o en el techo, asegúrese de instalarlo de acuerdo con el método recomendado por el fabricante.

- Puesta a tierra de la antena exterior — Si se conecta una antena exterior al televisor, asegúrese de que el sistema de antena esté conectado a tierra para obtener cierta protección ante los aumentos de voltaje y la acumulación de cargas estáticas.
  El artículo 810 del Código Eléctrico Nacional, ANSI/NFPA 70, proporciona información relacionada con la conexión a tierra correcta del poste y la estructura de apoyo, la conexión a tierra del cable de entrada a una unidad de descarga de antena, el tamaño de los conductores de conexión a tierra, la ubicación de la unidad de descarga de antena, la conexión a los electrodos de conexión a tierra y los requerimientos para el electrodo de conexión a tierra.

EJEMPLO DE CONEXIÓN A TIERRA DE LA ANTENA SEGÚN EL CÓDIGO ELÉCTRICO NACIONAL, ANSI/NFPA 70


CABLE DE ENTRADA DE ANTENA
ABRAZADERA DE CONEXIÓN A TIERRA
UNIDAD DE DESCARGA DE ANTENA (NEC SECCIÓN 810-20)
EQUIPO DE SERVICIO ELÉCTRICO
CONDUCTORES DE CONEXIÓN A TIERRA (NEC SECCIÓN 810-21)
ABRAZADERAS DE CONEXIÓN A TIERRA
SISTEMA DE CONEXIÓN A TIERRA DEL ELECTRODO DE SERVICIO ELÉCTRICO (NEC ART. 250)
NEC — CÓDIGO ELÉCTRICO NACIONAL

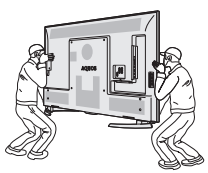
- Agua y humedad — No utilice este producto cerca del agua como, - por ejemplo, una bañera, palangana, fregadero de cocina o lavadora; en un sótano húmedo; cerca de una piscina o un lugar similar.
- Soporte — No coloque el producto en un carrito, soporte, trípode o mesa inestable. La colocación del producto en una base inestable puede ser la causa de que el producto se caiga, lo que podrá causar lesiones graves a personas y también daños al producto. Utilice solamente un carrito, soporte, trípode, ménsula o mesa recomendado por el fabricante o vendido junto con el producto. Cuando coloque el producto en una pared, asegúrese de seguir las instrucciones del fabricante. Utilice solamente el hardware de montaje recomendado por el fabricante.
- Selección de la ubicación — Seleccione un lugar donde no dé directamente la luz del sol y haya buena ventilación.
- Ventilación — Los orificios de ventilación y otras aberturas de la caja han sido diseñados para ventilar el producto. No cubra ni bloquee estos orificios de ventilación y aberturas porque la falta de ventilación puede causar recalentamiento y/o reducir la duración del producto. No coloque el producto en una cama, sofá, alfombra u otra superficie similar porque las aberturas de ventilación podrán quedar bloqueadas. Este producto no ha sido diseñado para ser empotrado; no lo coloque en un lugar cerrado como, por ejemplo, un mueble librería o estantería a menos que disponga de la ventilación apropiada o se sigan las instrucciones del fabricante.
- El panel frontal utilizado en este producto está hecho de cristal. Por lo tanto, podrá romperse si el producto se cae o recibe un impacto fuerte. En el caso de que se rompa la pantalla de cristal líquido, tenga cuidado para que no le hieran las piezas de cristal roto.
- Calor — El producto deberá colocarse alejado de las fuentes de calor como, por ejemplo, radiadores, salidas de aire caliente, estufas u otros productos (incluyendo amplificadores) que produzcan calor.
- La pantalla de cristal líquido es un producto de alta tecnología que tiene 8.294.400 píxeles, lo que le proporciona una imagen fina muy detallada.
  De vez en cuando puede que aparezcan algunos píxeles no activos en la pantalla a modo de puntos fijos de color azul, verde o rojo. Tenga en cuenta que esto no afecta para nada al funcionamiento de su producto.
- Tormentas eléctricas — Para una mayor protección del televisor durante una tormenta de rayos, y

cuando se deja descuidado y sin usar durante largos periodos de tiempo, desenchúfelo de la toma de corriente de la pared y desconecte la antena. Esto evitará daños al televisor debidos a rayos y subidas de tensión.

- Cables de electricidad — No deberá ubicarse un sistema de antena exterior cercano a cables de electricidad que pasen por encima del mismo u otras luces eléctricas o circuitos de alimentación, o donde puede caer sobre tales cables de electricidad o circuitos. Cuando instale un sistema de antena exterior, deberá tomar un cuidado extremo para evitar tocar tales cables de electricidad o circuitos, pues el contacto con ellos podría resultar fatal.
- Para impedir un incendio, no ponga nunca ningún tipo de vela o llama al descubierto encima o cerca del televisor.
- Para impedir un incendio o una descarga eléctrica, no ponga el cable de CA debajo del televisor u otros objetos pesados.
- No muestre una imagen fija durante mucho tiempo porque esto podrá ser la causa de que quede una imagen residual en la pantalla.
- Para impedir un incendio o una descarga eléctrica, no exponga este aparato al goteo ni a las salpicaduras. Tampoco deberán ponerse encima del producto objetos llenos de líquidos como, por ejemplo, floreros.
- No introduzca ningún tipo de objeto en el producto. Introducir objetos por las aberturas de ventilación o por otras aberturas puede ser causa de incendio o de descarga eléctrica. Tome especiales precauciones al utilizar el producto con niños en las proximidades.

Precauciones al transportar el televisor

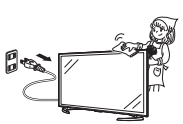
- Cuando transporte el televisor nunca lo lleve colgando ni ejerciendo presión sobre el visualizador. El televisor deberá ser transportado siempre por dos personas que lo tomarán con ambas manos.



Cuidado del gabinete

- Use un paño suave (algodón, franela, etc.) y limpie la superficie del gabinete.
- El uso de un paño químico (paño de tipo de hoja mojado/seco, etc.) puede deformar los componentes del gabinete o causar rajaduras.
- La limpieza con un paño duro o el uso enérgico de fuerza pueden rayar la superficie del gabinete.
- Si el gabinete está muy sucio, límpielo con un paño suave (algodón, franela, etc.) empapado en un detergente neutro diluido con agua y escurrido completamente y, luego, repase con un paño suave seco.
- Evite usar benceno, disolvente y otros solventes, ya que estos podrían deformar el gabinete y causar que la pintura se descascare.
- No aplique insecticidas u otros líquidos volátiles. Así mismo, no permita que el gabinete permanezca en contacto con productos de goma o vinilo durante un largo período de tiempo. Los plastificantes dentro del plástico pueden causar que el gabinete se deforme y hacer que la pintura se descascare.

Cuidado del panel frontal



- Apague la alimentación principal y desconecte el cable de CA de la toma de corriente antes de manipularla.
- Limpie la superficie del panel frontal delicadamente con un paño suave (algodón, franela, etc.).
  Para proteger la superficie del panel frontal, no use un paño sucio, limpiadores líquidos o un paño químico (paño de tipo de hoja mojada/seca, etc.). Esto puede dañar la superficie del panel frontal.
- La limpieza con un paño duro o el uso enérgico de fuerza puede rayar la superficie del panel frontal.
- Use un paño húmedo suave para limpiar delicadamente el panel frontal cuando esté realmente sucio. (Se podría rayar la superficie del panel frontal si se limpia vigorosamente.)
- Si el panel frontal está empolvado, use un cepillo anti-estática, el cual está disponible comercialmente, para limpiarlo.

SEGURIDAD DE LOS NIÑOS:

ASUNTOS RELACIONADOS CON LA CORRECTA COLOCACIÓN DEL TELEVISOR

A LA INDUSTRIA DE LOS ARTÍCULOS ELECTRÓNICOS DE CONSUMO LE IMPORTA

- Los fabricantes, los minoristas y el resto de la industria de los artículos electrónicos de consumo han asumido el compromiso de lograr que el entretenimiento en el hogar sea seguro y se pueda disfrutar.
- Cuando disfrute de su televisor, tenga en cuenta que todos los televisores — ya sean nuevos o viejos—deben estar colocados sobre un soporte adecuado o instalados según las recomendaciones del fabricante. Los televisores que se colocan en forma inadecuada sobre tocadores, bibliotecas, estantes, escritorios, parlantes, cajoneras, carros, etc. pueden caer y provocar lesiones.

SINTONICE LA SEGURIDAD

- **SIEMPRE** siga las recomendaciones del fabricante para instalar el televisor de manera segura.
- **SIEMPRE** lea y siga todas las instrucciones para el uso adecuado del televisor.
- **NUNCA** permita que los niños trepen o jueguen sobre el televisor o sobre el mueble en el que se encuentra ubicado el televisor.
- **NUNCA** coloque el televisor sobre un mueble que se pueda usar fácilmente como escalera; por ejemplo, una cajonera.
- **SIEMPRE** instale el televisor donde no se pueda empujar, ni sea posible tirar de él o voltearlo.
- **SIEMPRE** acomode los cables conectados al televisor de manera tal que nadie pueda tropezar con ellos ni tirar de ellos.

INSTALACIÓN DEL TELEVISOR EN LA PARED O EN EL CIELO RASO

- **SIEMPRE** comuníquese con su vendedor para consultarle acerca de un instalador profesional si tiene dudas con respecto a su capacidad de instalar el televisor de manera segura.
- **SIEMPRE** utilice un soporte recomendado por el fabricante de televisores que tenga una certificación de seguridad de un laboratorio independiente (como UL, CSA, ETL).
- **SIEMPRE** siga todas las instrucciones proporcionadas por los fabricantes del televisor y del soporte.
- **SIEMPRE** asegúrese de que la pared o el cielo raso sobre el que instala el televisor sea adecuado. Ciertos soportes no están diseñados para ser instalados en paredes o cielo rasos con travesaños de acero o construcciones con bloques de cemento prefabricados. Si no está seguro al respecto, comuníquese con un instalador profesional.
- Los televisores pueden ser pesados. Se requieren como mínimo dos personas para instalar un televisor en la pared o el cielo raso.

CÓMO REUBICAR UN TELEVISOR VIEJO EN EL HOGAR

- Muchas personas llevan sus viejos televisores CRT a una habitación secundaria de la casa cuando compran un televisor de pantalla plana. Se debe prestar especial atención a la ubicación de los viejos televisores CRT.
- **SIEMPRE** coloque su viejo televisor CRT sobre un mueble resistente que resulte adecuado para su tamaño y su peso.
- **NUNCA** coloque su viejo televisor CRT sobre un tocador en el que los niños puedan usar los cajones para trepar.
- **SIEMPRE** asegúrese de que su viejo televisor CRT no sobresalga por los bordes del mueble.

CE.org/safety

CEA Consumer Electronics Association

ESPAÑOL

INSTRUCCIONES DE SEGURIDAD IMPORTANTES

LAN inalámbrico

Este televisor ha recibido las siguientes certificaciones.
- Wi-Fi CERTIFIED™ (programa de certificación de la Wi-Fi Alliance®)
- Wi-Fi Protected Setup™ (programa de certificación de la Wi-Fi Alliance®)

FCC
Este dispositivo cumple con el Apartado 15 de las Normas FCC. Su funcionamiento está sujeto a las dos condiciones siguientes:
(1) Este dispositivo no deberá causar interferencias perjudiciales, y (2) deberá aceptar cualquier interferencia que reciba, incluyendo interferencias que puedan causar un funcionamiento no deseado. Cualquier cambio o modificación no aprobado expresamente por la parte responsable de la conformidad podría anular la autorización del usuario para utilizar el equipo. Para cumplir con los requisitos de exposición a radiofrecuencias de la FCC, este dispositivo y su antena no deben colocarse ni funcionar en conjunción con ninguna otra antena o transmisor.
El dispositivo para la banda de 5150-5250 MHz es sólo para uso en interiores para reducir la posibilidad de interferencias cocanal dañinas en los sistemas móviles por satélite;
La máxima ganancia de antena permitida (para dispositivos en las bandas 5250-5350 MHz y 5470-5725 MHz) deberá cumplir con el límite e.i.r.p.; y los radares de alta potencia se asignan como usuarios primarios (lo que quiere decir que tienen prioridad) de las bandas 5250-5350 MHz y 5650-5850 MHz y estos radares podrían causar interferencias y/o dañar los dispositivos LELAN.

IFETEL
Este equipo opera a titulo secundario, consecuentemente, debe aceptar interferencias perjudiciales incluyendo equipos de la misma clase y puede no causar interferencias a sistemas operando a titulo primario.
CONTIENE MODULO TRANSMISOR IFETEL ID: RCPSHDH13-2254
Marca: SHARP
Modelo: DHUB-SP1

INSTRUCCIONES DE SEGURIDAD IMPORTANTES

Bluetooth

Notes on Radio Wave Certification in the U.S.A. and Canada

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

"This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter."

FCC/INDUSTRY CANADA NOTICE
This device complies with Part 15 of FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.
This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exprosure rules. This equipment has very low levels of RF energy that are deemed to comply without testing of specific absorption ratio (SAR).

FCC CAUTION
Changes or modifications not expressly approved by Hosiden responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
Reorient or relocate the receiving antenna.
Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
Consult the dealer or an experienced radio/TV technician for help.

This Class B digital apparatus complies with Canadian ICES-003

Le présent appareil est conforme aux la prtie 15 des règles de la FCC et CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'uitilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles les radioélectriques (RF) de la FCC lignes directrices d'exposition dans le Supplément C à OET65 et d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'IC. Cet équipement émet une énergie RF très faible qui est considérée conforme sans évaluation du débit d'absorption spécifique (DAS).

Cet appareil numérique de la classe B est conforme à la norme NMB-3 du Canada.

■ Televisor

Notas sobre la Certificación de Radiodifusión en México

- IFETEL: RCPSHDH13-2254
- Nombre de la marca del módulo con licencia: SHARP CORPORATION
- Nombre de modelo del módulo con licencia: ARC0517
- Módulo ARC0517 instalado adentro de esta gafas

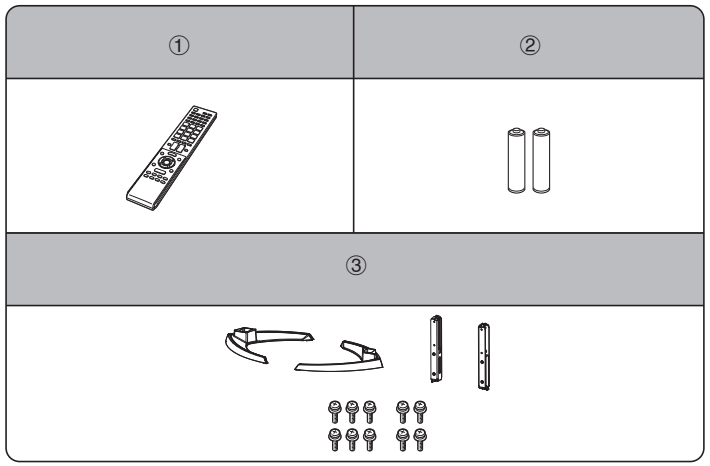
PRECAUCIÓN

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

Número de licencia para la certificación de radiodifusión

Estados Unidos CONTAINS FCC ID: NKR-SP1
Canadá CONTAINS IC: 4441A-SP1

Accessories/Accessoires/Accesorios



ENGLISH

Supplied Accessories

Make sure the following accessories are provided with the product.

NOTE

- Always use the AC cord supplied with the TV.
- The illustrations above are for explanation purposes and may vary slightly from the actual accessories.

① Remote control unit (x1)
② "AAA " size battery (x2)
③ Stand unit (x1)

■ Setup Guide (this publication)

Optional Accessories

The listed optional accessories are available for the Liquid Crystal Television. Please purchase them at your nearest shop.

- Additional optional accessories may be available in the near future. When purchasing, please read the newest catalogue for compatibility and check the availability.

Part name	Model number
Wall mount bracket	AN-52AG4

FRANÇAIS

Accessoires fournis

Vérifiez si les accessoires suivants sont fournis avec l'appareil.

REMARQUE

- Utilisez toujours le cordon secteur fourni avec le téléviseur.
- Les illustrations de ce mode d'emploi sont présentées à titre explicatif et peuvent être légèrement différentes des accessoires réels.

① Télécommande (x1)
② Pile format « AAA » (x2)
③ Ensemble du socle (x1)

■ Guide de Setup (ce document)

Accessoires en option

Les accessoires en option de la liste sont disponibles pour ce téléviseur à écran à cristaux liquides.
Vous les trouverez chez votre revendeur le plus proche.

- D'autres accessoires en option peuvent être disponibles dans un proche avenir. Lors de vos achats, lisez le catalogue le plus récent pour la compatibilité et vérifiez la disponibilité des accessoires.

Désignation	Numéro de modèle
Applique pour montage mural	AN-52AG4

ESPAÑOL

Accesorios suministrados

Asegúrese de que los siguientes accesorios hayan sido suministrados con el producto.

NOTA

- Utilice siempre el cable de CA suministrado con el televisor.
- Las ilustraciones anteriores son para propósitos de explicación y podrían variar levemente con respecto a los accesorios reales.

① Control remoto (x1)
② Pila tamaño “AAA” (x2)
③ Soporte (x1)

■ Guía de Setup (esta publicación)

Accesorios opcionales

Los accesorios opcionales listados se encuentran disponibles para el televisor con pantalla de cristal líquido. Adquiéralos en la tienda más cercana.

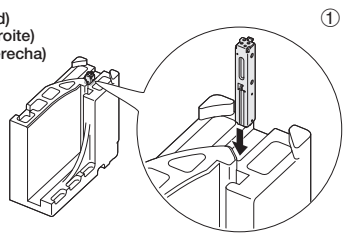
- En un futuro cercano podrán encontrarse disponibles accesorios opcionales adicionales. Lea el catálogo más reciente para conocer la compatibilidad y la disponibilidad de esos accesorios.

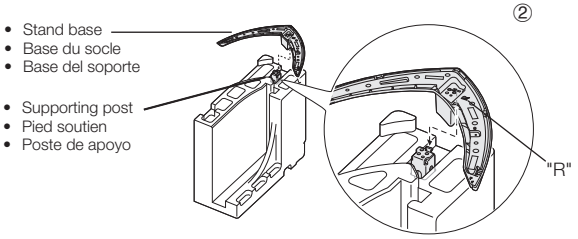
Nombre de pieza	Número del modelo
Ménsula de montaje en la pared	AN-52AG4

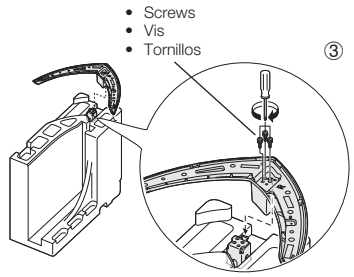
Attaching the Stand/Fixation du socle/Colocación del soporte

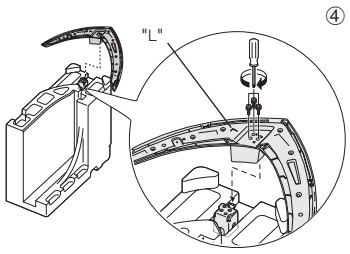
1

2 **(Example: Right Stand)**
(Exemple: Socle de droite)
(Ejemplo : Soporte derecha)









ENGLISH

- Before attaching (or detaching) the stand, unplug the AC cord.
- Before performing work spread cushioning over the base area to lay the TV on. This will prevent it from being damaged.

CAUTION

- **Be sure to follow the instructions. Incorrect installation of the stand may result in the TV falling over.**

1 Confirm that there are 10 screws supplied with the stand unit.

2 ①Set the post for the stand unit into the TOP LEFT polystyrene foam.
②Attach the base to the post.
③Insert and tighten the 3 screws into the 3 holes on the bottom of the base.
- Hold the stand unit securely with one hand, and then tighten the screws.

④Assemble the left stand as well as the right stand.

FRANÇAIS

- Avant de poser (ou déposer) le socle, débranchez le cordon secteur.
- Avant de procéder aux opérations, étendez un rembourrage sur la surface de travail pour y placer le téléviseur. Ceci lui évitera d'être endommagé.

ATTENTION

- **Suivez attentivement les instructions. Un montage incorrect du socle peut entraîner la chute du téléviseur.**

1 Confirmez que 10 vis sont fournies avec le socle.

2 ①Posez le pied pour l'ensemble du socle en HAUT À GAUCHE sur la mousse de polystyrène.
②Fixez la base au pied.
③Insérez et serrez les 3 vis dans les 3 orifices sur la partie inférieure de la base.
- Maintenez fermement le socle d'une main, puis serrez les vis.

④Montez le socle de gauche ainsi que le socle de droite.

ESPAÑOL

- Antes de poner (o quitar) el soporte, desenchufe el cable de CA.
- Antes de trabajar con el televisor, extienda un material blando sobre el área donde va a ponerlo. Esto impedirá que se estropee el televisor.

PRECAUCIÓN

- **Asegúrese de seguir las instrucciones. La instalación incorrecta del soporte puede causar la caída del televisor.**

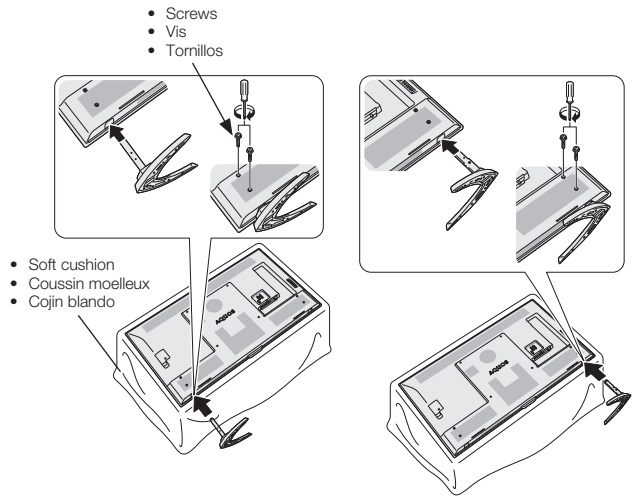
1 Confirme que se han suministrado 10 tornillos con el soporte.

2 ①Coloque el poste para el soporte en la espuma de poliestireno SUPERIOR IZQUIERDA.
②Acople la base al poste.
③Inserte y apriete los 3 tornillos en los 3 agujeros en la parte inferior de la base.
- Sujete el soporte de forma segura con una mano, y luego ajuste los tornillos.

④Ensamble el soporte izquierdo así como el soporte derecha.

Attaching the Stand/Fixation du socle/Colocación del soporte

3



ENGLISH

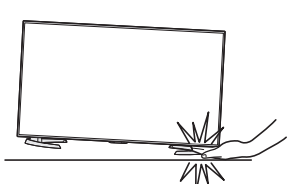
3 Insert the stand into the openings on the rear of the TV, and then tighten the 4 screws into the 4 holes on the rear of the stand unit.
- Make sure that the stand is firmly inserted into the TV. Improper installation may result in tilting of the TV set.

FRANÇAIS

3 Insérez le socle dans les ouvertures au dos du téléviseur et serrez les 4 vis dans les 4 orifices au dos du socle.
- Assurez-vous que le support est fermement inséré dans le téléviseur. Si ce n'est pas le cas, le téléviseur pourrait s'incliner.

ESPAÑOL

3 Inserte el soporte en las aberturas en la parte posterior del televisor y apriete los 4 tornillos en los 4 orificios en la parte posterior del soporte.
- Asegúrese de que el soporte esté firmemente introducido en el televisor. Una instalación incorrecta puede resultar en la inclinación del televisor.



- In the installation procedure, be careful not to catch your fingers between the TV set and the floor.
- **Do not remove the stand from the TV unless using an optional wall mount bracket to mount it.**
- **After attaching the stand to the TV, do not hold the stand when you put up, set up, move or lay down the TV.**

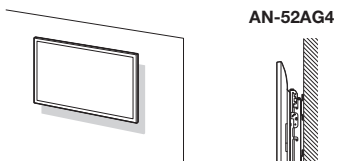
- Lors de l'installation, faites attention de ne pas vous coincer les doigts entre le téléviseur et le sol.
- **Ne retirez pas le socle du téléviseur, sauf si vous utilisez l'applique pour montage mural en option pour le monter.**
- **Après avoir fixé le socle au téléviseur, ne tenez pas le socle lorsque vous posez, installez, déplacez ou fixez le téléviseur.**

- Durante el procedimiento de instalación, asegúrese de que sus dedos no queden atrapados entre el televisor y el suelo.
- **No quite el soporte del televisor a menos que utilice una ménsula de montaje en pared opcional para montarlo.**
- **Tras instalar el soporte al televisor, no sujete el soporte cuando cuelgue, monte, mueva o coloque el televisor.**

Setting the TV on the Wall/Montage du téléviseur sur un mur/Instalación del televisor en una pared

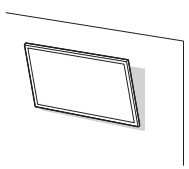
Hanging on the wall
Suspension au mur
Suspensión del televisor en una pared

- AN-52AG4 wall mount bracket. (See the bracket instructions for details.)
- Applique pour montage au mur AN-52AG4. (Reportez-vous aux instructions de l'applique pour les détails.)
- Ménsula de montaje en la pared AN-52AG4. (Consulte las instrucciones de la ménsula para conocer más detalles.)

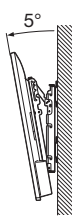


Vertical mounting
Montage à la verticale
Montaje vertical

AN-52AG4



Angular mounting
Montage en angle
Montaje en ángulo



ENGLISH

Using an optional bracket to mount the TV

- You can ask a qualified service professional about using an optional AN-52AG4 bracket to mount the TV on the wall.
- Carefully read the instructions that come with the bracket before beginning work.

CAUTION

- **This TV should be mounted on the wall only with the wall mount bracket AN-52AG4 (SHARP). The use of other wall mount brackets may result in an unstable installation and may cause serious injuries.**
- **Installing the TV requires special skill that should only be performed by qualified service personnel. Customers should not attempt to do the work themselves. SHARP bears no responsibility for improper mounting or mounting that results in accident or injury.**

Hanging on the wall

LC-70UD27U
- The center of the display: 3/32 inch (2mm) above the "c" position.

LC-60UD27U
- The center of the display: 13/32 inch (10mm) above the "c" position.

Refer to the operation manual of AN-52AG4 for details.

The wall mount kit (sold separately) allows you to mount the TV on the wall.For detailed information on installing the wall mount, see the instructions provided with the product.
We recommend you to contact a technician for assistance when installing it.
SHARP is not responsible for any damage to the product or injury to yourself or others if you elect to install the wall mount on your own.

CAUTION

- **Install your wall mount on a solid wall perpendicular to the floor.**
  When you want to attach the wall mount to surfaces other than plaster board, please contact your nearest retailer/adviser for additional information. If you install the TV on a ceiling or slanted wall, it may fall and result in severe personal injury. Always have two people mount the TV on a wall.

NOTE

- Due to the terminal configuration on this TV, when you wall-mount this model, make sure there is enough space between the wall and the TV for the cables.
- To use this TV mounted on a wall, remove the AC cord holder on the rear of the TV, and then use the screws supplied with the wall mount bracket to secure the bracket to the rear of the TV.

FRANÇAIS

Utilisation de l'applique en option pour monter le téléviseur

- Vous pouvez faire appel à un technicien de service qualifié et utiliser l'applique AN-52AG4 en option pour monter le téléviseur sur un mur.
- Lisez attentivement les instructions accompagnant l'applique avant de commencer les travaux.

ATTENTION

- **Ce téléviseur doit être installé sur un mur uniquement avec l'applique pour montage mural AN-52AG4 (SHARP). Une installation instable et un risque de blessures graves pourraient résulter de l'utilisation d'autres appliqués pour montage mural.**
- **L'installation du téléviseur demande une qualification spéciale et ne devra être exécutée que par un personnel d'entretien qualifié. Nous vous conseillons de ne pas effectuer vous-même ce travail. SHARP décline toute responsabilité en cas de montage défectueux pouvant provoquer un accident ou des blessures.**

Suspension au mur

LC-70UD27U
- Le centre de l'écran: 3/32 de pouce (2mm) au-dessus de la position "c".

LC-60UD27U
- Le centre de l'écran: 13/32 de pouce (10mm) au-dessus de la position "c".

Consultez le mode d'emploi de AN-52AG4 pour les détails.

Le kit de montage mural (vendu séparément) vous permet de monter le téléviseur au mur.
Pour des informations détaillées sur l'installation murale, référez-vous aux instructions fournies avec le produit. Nous vous recommandons de faire appel à un technicien pour vous aider à l'installer.
SHARP ne pourra être tenu pour responsable de l'endommagement du produit ou des blessures corporelles causées à vous-même ou à autrui si vous décidez d'installer le téléviseur au mur, sans assistance professionnelle.

ATTENTION

- **Installez l'appareil sur un mur solide, perpendiculaire au sol.**
  Si vous souhaitez fixer l'applique murale sur une surface autre qu'une plaque de plâtre, prenez contact avec votre détaillant/conseiller pour de plus amples informations. Si vous installez le téléviseur au plafond ou sur un mur incliné, il peut tomber et provoquer des blessures corporelles graves. Il faut un minimum de deux personnes pour l'installation murale du téléviseur.

REMARQUE

- En raison de la configuration des prises sur ce téléviseur, lors du montage au mur de ce modèle, assurez-vous de laisser un espace suffisant entre le mur et le téléviseur pour faire passer les câbles.
- Avant toute installation du téléviseur au mur, retirer le support du cordon secteur à l'arrière du téléviseur, puis utiliser les vis fournies avec l'applique pour montage mural pour la fixer à l'arrière du téléviseur.

ESPAÑOL

Utilización de una ménsula opcional para montar el televisor

- Puede preguntar al personal de servicio cualificado acerca de la utilización de una ménsula AN-52AG4 opcional para montar el televisor en una pared.
- Lea cuidadosamente las instrucciones que acompañan a la ménsula antes de iniciar el trabajo.

PRECAUCIÓN

- **Este televisor se instalará en la pared solamente con la ménsula de montaje en pared AN-52AG4 (SHARP). El uso de otras ménsulas de montaje en pared puede conducir a una instalación inestable y esto puede causar lesiones graves.**
- **La instalación del televisor requiere un conocimiento especial, por lo que ésta sólo deberá ser realizada por personal de servicio cualificado. Los clientes no deberán intentar hacer este trabajo ellos mismos. SHARP no se hace responsable del montaje incorrecto ni del montaje que pueda causar accidentes o lesiones.**

Suspensión del televisor en una pared

LC-70UD27U
- El centro de la pantalla: 3/32 pulgadas (2 mm) por encima de la posición "c".

LC-60UD27U
- El centro de la pantalla: 13/32 pulgadas (10 mm) por encima de la posición "c".

Consulte el manual de operación de AN-52AG4 para más detalles.

Utilización del kit de montaje mural para montar el televisor.
El kit de montaje mural (se vende por separado) le permite montar el televisor en una pared.
Para obtener información detallada sobre la instalación del montaje mural, consulte las instrucciones que se proporcionan con el producto. Le recomendamos que se ponga en contacto con un técnico para obtener ayuda para la instalación.
SHARP no se hace responsable de los daños que pueda sufrir el producto, usted mismo u otras personas si decide instalar el montaje mural usted mismo.

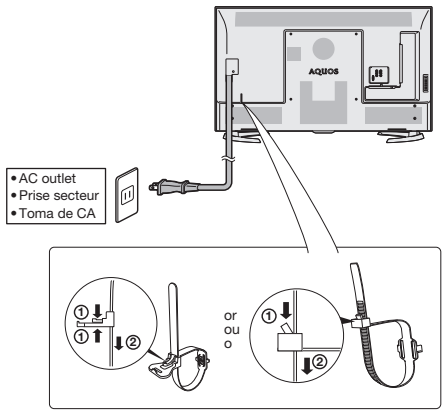
PRECAUCIÓN

- **Instale el montaje mural en un muro sólido y perpendicular al suelo. Si desea colocar el montaje mural en superficies que no sean de yeso, póngase en contacto con el distribuidor/asesor más próximo para obtener información adicional. Si instala el televisor en un techo o en una pared inclinada, este podría caer y provocar lesiones personales graves. El montaje del televisor en la pared requiere la presencia de dos personas.**

NOTA

- Debido a la configuración de los terminales en este televisor, al instalar este modelo en la pared, asegúrese de que haya espacio suficiente para los cables entre la pared y el televisor.
- Para utilizar este TV instalado en la pared, quite el soporte del cable de CA de la parte posterior del TV, y a continuación utilice los tornillos, suministrados con la ménsula de montaje en pared, para fijarla en la parte posterior del TV.

AC power supply/Alimentation secteur/Fuente de alimentación de CA



- Place the TV close to the AC outlet, and keep the power plug within reach.
- Placez le téléviseur près de la prise secteur et gardez la fiche du cordon secteur à proximité.
- Coloque el televisor cerca de la toma de CA, y mantenga el enchufe al alcance de la mano.

ENGLISH

AC connection

1 Attach your antenna to the back of the television. (See page 26.)

2 Connect the AC plug for the television into the AC outlet.
- Place the TV close to the AC outlet, and keep the power plug within reach.
- Bundle the cords properly with the cable tie.

NOTE

- **TO PREVENT RISK OF ELECTRIC SHOCK, DO NOT TOUCH UN-INSULATED PARTS OF ANY CABLES WITH THE AC CORD CONNECTED.**

FRANÇAIS

Connexion secteur

1 Fixez votre antenne au dos du téléviseur. (Voir page 26.)

2 Branchez la fiche secteur pour le téléviseur dans la prise secteur.
- Placez le téléviseur près de la prise secteur et gardez la fiche du cordon secteur à proximité.
- Attachez soigneusement les cordons avec le collier de serrage.

REMARQUE

- **POUR ÉVITER LES RISQUES D'ÉLECTROCUTION, NE TOUCHEZ PAS LES PIÈCES NON-ISOLÉES DES CÂBLES LORSQUE LE CORDON SECTEUR EST BRANCHÉ.**

ESPAÑOL

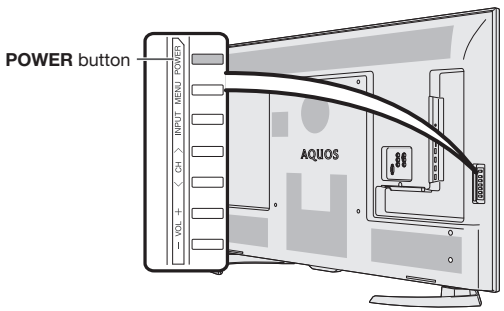
Conexión de CA

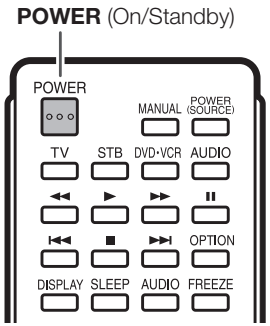
1 Coloque su antena en la parte posterior del televisor. (Consulte la página 26.)

2 Conecte la clavija de CA del televisor en una toma de CA.
- Coloque el televisor cerca de la toma de CA, y mantenga el enchufe al alcance de la mano.
- Ate los cables correctamente utilizando la banda de cable.

NOTA

- **PARA IMPEDIR EL RIESGO DE DESCARGA ELÉCTRICA, NO TOQUE LAS PARTES SIN AISLAR DE NINGÚN CABLE ESTANDO CONECTADO EL CABLE DE CA.**





ENGLISH

3 When turning on the TV for the first time, press **POWER** on the television.

4 Insert the batteries into the remote control unit. (See page 25.)

NOTE

- Speakers cannot be detached from the TV.
- The TV angle cannot be adjusted.

Turning On/Off the Power

Press **POWER** on the TV or on the remote control unit to turn the power on.

NOTE

- The Initial Installation starts when the TV powers on for the first time. If the TV has been turned on before, the Initial Installation will not be invoked. For changing the settings of the Initial Installation, perform "Easy Setup" on the Setup menu.

Press **POWER** on the TV or on the remote control unit again to turn the power off.

- The TV enters standby and the image on the screen disappears.

NOTE

- If you are not going to use this TV for a long period of time, be sure to remove the AC cord from the AC outlet.
- Weak electric power is still consumed even when the TV is turned off.

Experiencing HD Images

An HDTV without an HD source is just an ordinary TV.
To enjoy HD images on the TV, you should get HD programming from the following:

- Over-the-air broadcasting via HD quality antenna
- HD cable/satellite subscription
- HD compatible external equipment

NOTE

- For information on updating to HD programming, ask your cable/satellite service provider.

FRANÇAIS

3 Lorsque vous allumez le téléviseur pour la première fois, appuyez sur **POWER** sur le téléviseur.

4 Introduisez les piles dans la télécommande. (Voir page 25.)

REMARQUE

- Le haut-parleur ne peut pas être séparé du téléviseur.
- L'angle du téléviseur ne peut pas être ajusté.

Mise sous/hors tension

Appuyez sur la touche d'alimentation (**POWER**) sur le téléviseur ou sur la télécommande pour le mettre sous tension.

REMARQUE

- L'installation initiale démarre lorsque le téléviseur est mis sous tension pour la première fois. Si le téléviseur a déjà été mis sous tension, l'installation initiale n'a pas lieu. Pour changer les réglages de l'installation initiale, procédez « Configuration facile » dans le menu Configuration.

Appuyez de nouveau sur la touche d'alimentation (**POWER**) sur le téléviseur ou sur la télécommande pour l'éteindre.

- Le téléviseur entre en attente et l'image à l'écran disparaît.

REMARQUE

- Si vous prévoyez de ne pas utiliser le téléviseur pendant une période prolongée, veillez à retirer le cordon secteur de la prise secteur.
- Une faible quantité d'électricité est consommée même lorsque le téléviseur est mis hors tension.

Expérience d'images HD

Un téléviseur haute définition sans source HD n'est qu'un téléviseur ordinaire.
Pour profiter d'images HD sur le téléviseur, vous devez bénéficier d'une programmation HD depuis l'une des sources suivantes :

- Diffusion hertzienne via une antenne HD de qualité
- Abonnement câble/satellite HD
- Équipement externe compatible HD

REMARQUE

- Pour de plus amples informations sur la mise à jour vers une programmation HD, consultez votre prestataire de service par câble/satellite.

ESPAÑOL

3 Al encender el televisor por primera vez, pulse **POWER** en el televisor.

4 Inserte las pilas en el control remoto. (Consulte la página 25.)

NOTA

- Las bocinas no pueden ser separadas del televisor.
- El ángulo del televisor no se puede ajustar.

Conexión/Desconexión de la alimentación

Pulse **POWER** en el televisor o en el control remoto para conectar la alimentación.

NOTA

- La preparación inicial empieza cuando se enciende el televisor por primera vez. Si el televisor ya ha sido encendido con anterioridad, la preparación inicial no se activará. Para cambiar los ajustes de la preparación inicial, intente “Autoinstalación” en el menú Configuración.

Pulse de nuevo **POWER** en el televisor o en el control remoto para desconectar la alimentación.

- El televisor entra en espera y la imagen de la pantalla desaparece.

NOTA

- Si no va a utilizar este televisor durante un largo periodo de tiempo, asegúrese de desconectar el cable de CA de la toma de CA.
- Se consume algo de energía eléctrica incluso cuando el televisor esté apagado.

Vivencia de imágenes en HD

Un televisor de Alta Definición (HDTV) sin una fuente de HD es simplemente un televisor común.
Para disfrutar de las imágenes de HD en el televisor, debe obtener programación de HD por medio de una de las fuentes siguientes.

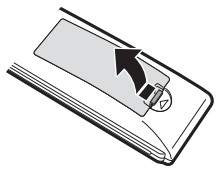
- Emisión aérea a través de una antena de calidad HD
- Suscripción a cable/satélite de HD
- Equipo externo compatible con HD

NOTA

- Para mayor información sobre cómo actualizar a programación HD, pregunte a su proveedor de servicio de cable/satélite.

Remote Control Unit/Télécommande/Control Remoto

1



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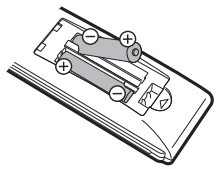

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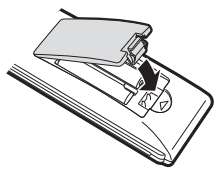
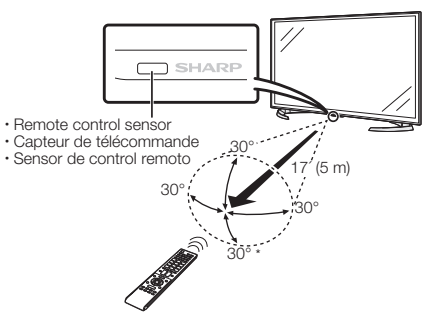
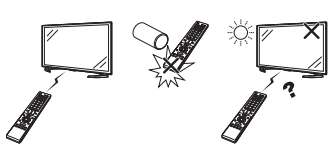




*
- The angle is 15° when the stand is attached.
- L'angle est de 15° lorsque le socle est fixé.
- El ángulo es de 15° cuando el soporte está sujeto.



ENGLISH

Installing Batteries in the Remote Control Unit

If the remote control fails to operate TV functions, replace the batteries in the remote control unit.

1 Open the battery cover.
2 Insert two "AAA" size batteries (supplied with the product).
- Place the batteries with their terminals corresponding to the (+) and (–) indications in the battery compartment.

3 Close the battery cover.

CAUTION

Improper use of batteries can result in chemical leakage or explosion. Be sure to follow the instructions below.
- Do not mix batteries of different types. Different types of batteries have different characteristics.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries or cause chemical leakage in old batteries.
- Remove batteries as soon as they are worn out. Chemicals that leak from batteries that come in contact with skin can cause a rash. If you find any chemical leakage, wipe thoroughly with a cloth.
- The batteries supplied with this product may have a shorter life expectancy due to storage conditions.
- If you will not be using the remote control unit for an extended period of time, remove batteries from it.

Using the Remote Control Unit

Use the remote control unit by pointing it towards the remote control sensor on the TV. Objects between the remote control unit and the remote control sensor may prevent proper operation.

■ Cautions regarding the remote control unit
- Do not expose the remote control unit to shock. In addition, do not expose the remote control unit to liquids, and do not place it in an area with high humidity.
- Do not install or place the remote control unit under direct sunlight. The heat may cause deformation of the remote control unit.
- The remote control unit may not work properly if the remote control sensor on the TV is under direct sunlight or strong lighting. In such cases, change the angle of the lighting or the TV, or operate the remote control unit closer to the remote control sensor.

IMPORTANT:

IF THE UNIT DOES NOT POWER ON - UNPLUG THE TELEVISION FROM THE OUTLET AND REPEAT THE INSTALLATION STEPS.
IF YOU STILL ENCOUNTER NO POWER, PLEASE CONTACT US AT 1-800-BE-SHARP.

FRANÇAIS

Mise en place des piles dans la télécommande

Si la télécommande ne contrôle plus les fonctions du téléviseur, remplacez les piles dans la télécommande.

1 Ouvrez le couvercle des piles.
2 Insérez les deux piles format « AAA » (fournies avec l'appareil).
- Placez les piles en faisant correspondre leurs bornes avec les indications (+) et (–) dans le compartiment.

3 Refermez le couvercle.

ATTENTION

Une utilisation incorrecte des piles peut provoquer des fuites ou une explosion. Veillez à suivre les instructions ci-dessous.
- N'utilisez pas ensemble des piles de types différents. Les autres piles ont des caractéristiques différentes.
- N'utilisez pas ensemble des piles usagées et neuves. Ceci peut raccourcir la durée de vie des piles neuves ou provoquer des fuites des piles usagées.
- Retirez les piles dès qu'elles sont usées. Le contact avec la peau de produits chimiques s'écoulant d'une pile peut provoquer une allergie. En cas de fuite, essuyez soigneusement avec un chiffon.
- Les piles fournies avec l'appareil peuvent avoir une durée de vie plus courte que prévue en raison des conditions de stockage.
- Si vous n'avez pas l'intention d'utiliser la télécommande pendant une période prolongée, retirez les piles.

Utilisation de la télécommande

Utilisez la télécommande en la dirigeant vers le capteur de télécommande du téléviseur. Les objets placés entre la télécommande et le capteur de télécommande risquent d'empêcher le bon fonctionnement des appareils.

■ Précautions relatives à la télécommande
- N'exposez pas la télécommande à des chocs. Ne l'exposez pas non plus à des liquides et ne la placez pas dans des endroits très humides.
- N'installez pas et n'exposez pas la télécommande directement au soleil. La chaleur peut provoquer la déformation de la télécommande.
- La télécommande risque de ne pas fonctionner normalement si le capteur de télécommande du téléviseur est directement exposé au soleil ou sous un éclairage violent. Dans ce cas, changez l'angle de l'éclairage ou du téléviseur, ou utilisez la télécommande en vous rapprochant du capteur de télécommande.

IMPORTANT:

SI L'UNITÉ NE SE MET PAS SOUS TENSION - DÉBRANCHEZ LE TÉLÉVISEUR DE LA PRISE SECTEUR ET RÉPÉTEZ LES ÉTAPES DE L'INSTALLATION.
SI LE TÉLÉVISEUR NE SE MET TOUJOURS PAS SOUS TENSION, CONTACTEZ-NOUS AU 1-800-BE-SHARP.

ESPAÑOL

Instalación de las pilas en el control remoto

Reemplace las pilas del control remoto si éste no puede operar el televisor.

1 Abra la cubierta de las pilas.
2 Inserte dos pilas tamaño "AAA" (suministradas con el producto).
- Ponga las pilas con sus terminales correspondientes en los indicadores (+) y (–) del compartimiento de las pilas.

3 Cierre la cubierta de las pilas.

PRECAUCIÓN

La utilización incorrecta de las pilas puede causar escapes de sustancias químicas o explosiones. Asegúrese de seguir las instrucciones dadas a continuación.
- No mezcle pilas de tipos diferentes. Las pilas de tipos diferentes tienen también características diferentes.
- No mezcle pilas viejas y nuevas. La mezcla de pilas viejas y nuevas puede reducir la duración de las pilas nuevas o causar fugas de sustancias químicas en las pilas viejas.
- Quite las pilas tan pronto como se agoten. Las sustancias químicas que escapan de las pilas y entran en contacto con la piel pueden causar sarpullido. Si detecta alguna fuga de sustancias químicas, limpie bien con un paño.
- Las pilas suministradas con este producto pueden durar menos de lo esperado debido a las condiciones en las que han estado guardadas.
- Si no va a utilizar el control remoto durante un largo periodo de tiempo, retire las pilas del mismo.

Utilización del control remoto

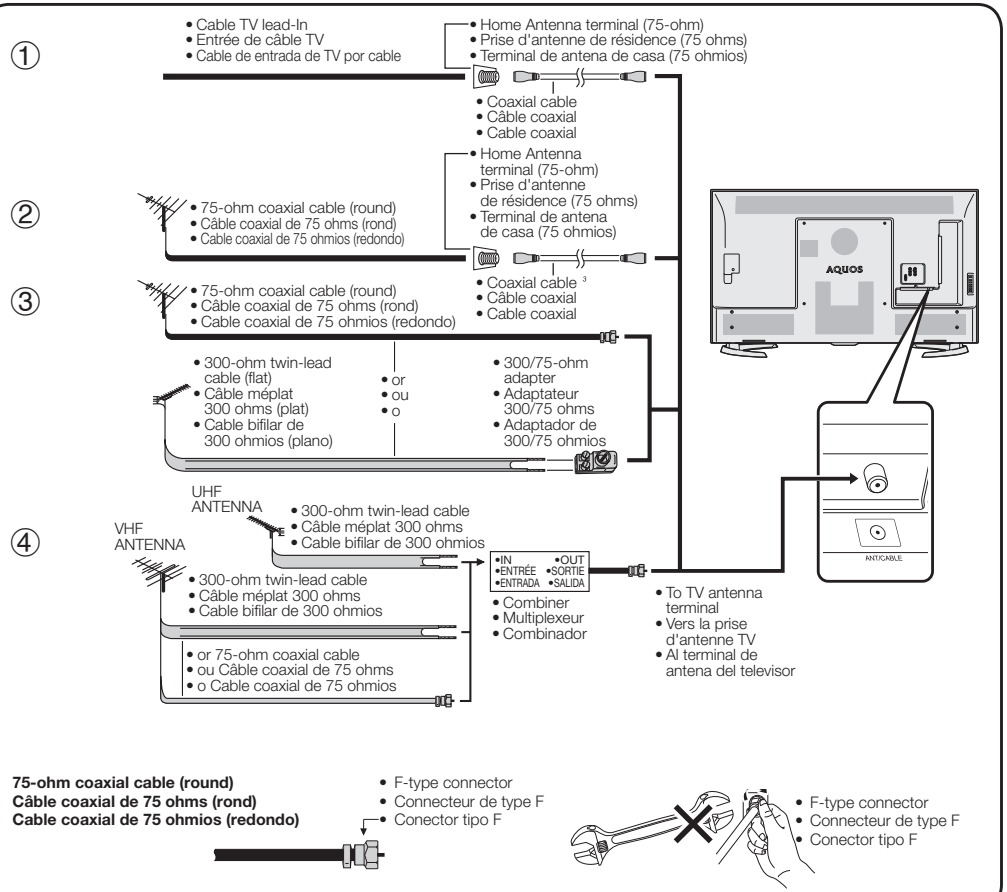
Utilice el control remoto apuntándolo hacia el sensor de control remoto en el televisor. Los objetos ubicados entre el control remoto y el sensor de control remoto pueden impedir el funcionamiento apropiado.

■ Precauciones relacionadas con el control remoto
- No exponga a golpes el control remoto. Además, no exponga tampoco el control remoto a los líquidos, y no lo coloque en un área con alta humedad.
- No instale ni coloque el control remoto bajo la luz directa del sol. El calor puede causar deformaciones en el mismo.
- El control remoto puede que no funcione correctamente si el sensor de control remoto del televisor está bajo la luz solar directa o una fuente de iluminación intensa. En tales casos, cambie el ángulo de la iluminación o del televisor, o utilice el control remoto más cerca del sensor de control remoto.

IMPORTANTE:

SI LA UNIDAD NO SE ENCIENDE, DESENCHUFE EL TELEVISOR DE LA TOMA DE CORRIENTE Y REPITA LOS PASOS DE INSTALACIÓN.
SI SIGUE SIN PODER ENCENDERLO, PÓNGASE EN CONTACTO CON NOSOTROS LLAMANDO AL 1-800-BE-SHARP.

Connection/Connexion/Conexión


①
• Cable TV lead-In
• Entrée de câble TV
• Cable de entrada de TV por cable
• Home Antenna terminal (75-ohm)
• Prise d'antenne de résidence (75 ohms)
• Terminal de antena de casa (75 ohmios)
• Coaxial cable
• Câble coaxial
• Cable coaxial
②
• 75-ohm coaxial cable (round)
• Câble coaxial de 75 ohms (rond)
• Cable coaxial de 75 ohmios (redondo)
• Home Antenna terminal (75-ohm)
• Prise d'antenne de résidence (75 ohms)
• Terminal de antena de casa (75 ohmios)
③
• 75-ohm coaxial cable (round)
• Câble coaxial de 75 ohms (rond)
• Cable coaxial de 75 ohmios (redondo)
• Coaxial cable 3
• Câble coaxial
• Cable coaxial
• 300-ohm twin-lead cable (flat)
• Câble méplat 300 ohms (plat)
• Cable bifilar de 300 ohmios (plano)
• or
• ou
• o
• 300/75-ohm adapter
• Adaptateur 300/75 ohms
• Adaptador de 300/75 ohmios
④
UHF ANTENNA
VHF ANTENNA
• 300-ohm twin-lead cable
• Câble méplat 300 ohms
• Cable bifilar de 300 ohmios
• 300-ohm twin-lead cable
• Câble méplat 300 ohms
• Cable bifilar de 300 ohmios
• or 75-ohm coaxial cable
• ou Câble coaxial de 75 ohms
• o Cable coaxial de 75 ohmios
•IN •OUT
•ENTRÉE •SORTIE
•ENTRADA •SALIDA
• Combiner
• Multiplexeur
• Combinador
• To TV antenna terminal
• Vers la prise d'antenne TV
• Al terminal de antena del televisor
AQUOS
ANT/CABLE
75-ohm coaxial cable (round)
Câble coaxial de 75 ohms (rond)
Cable coaxial de 75 ohmios (redondo)
• F-type connector
• Connecteur de type F
• Conector tipo F
• F-type connector
• Connecteur de type F
• Conector tipo F

ENGLISH

Antennas

To enjoy a clearer picture, use an outdoor antenna. The following is a brief explanation of the types of connections that are used for a coaxial cable. If your outdoor antenna uses a 75-ohm coaxial cable with an F-type connector, plug it into the antenna terminal at the rear of the TV set. For connecting the antenna cable to the TV, use commercially available cables.

Connecting Antenna Cable

- **Connect the antenna cable to the TV using one of the methods in the illustration as shown (①, ②, ③ or ④).**

① Cable without a CATV converter
② VHF/UHF antenna
③ Combination VHF/UHF antenna
④ Separate VHF/UHF antenna

* A 75-ohm system is generally a round cable with F-type connector that can easily be attached to a terminal without tools.
* A 300-ohm system is a flat "twin-lead" cable that can be attached to a 75-ohm terminal through a 300/75-ohm adapter.

NOTICE **F-type connector should be finger-tightened only.**

When connecting the RF cable to the TV set, do not tighten F-type connector with tools.
If tools are used, it may cause damage to your TV set. (The breaking of internal circuit, etc.)

FRANÇAIS

Antennes

Pour obtenir des images plus nettes, utilisez une antenne externe. Ce qui suit est une brève explication des types de raccordements utilisés pour le câble coaxial. Si votre antenne externe est dotée d'un câble coaxial de 75 ohms avec un connecteur de type F, branchez-la dans la prise d'antenne à l'arrière du téléviseur. Pour raccorder le câble d'antenne à un téléviseur, utilisez des câbles disponibles dans le commerce.

Raccordement du câble d'antenne

- **Raccordez le câble d'antenne au téléviseur par l'une des méthodes illustrées (①, ②, ③ ou ④).**

① Câble sans convertisseur CATV
② Antenne VHF/UHF
③ Antenne mixte VHF/UHF
④ Antenne séparée VHF/UHF

* Une antenne de 75 ohms comporte généralement un câble rond avec un connecteur de type F qui peut être facilement raccordé sans outils à la borne.
* Une antenne de 300 ohms comporte un câble plat à deux conducteurs « câble méplat » pouvant être raccordé à une borne de 75 ohms par l'intermédiaire d'un adaptateur 300/75 ohms.

REMARQUE **Le connecteur de type F doit être serré manuellement.**

Lors du raccordement du câble RF sur le téléviseur, ne serrez pas le connecteur de type F avec des outils.
Si des outils sont utilisés, ceci risque d'endommager le téléviseur (dommage du circuit interne, par ex.).

ESPAÑOL

Antenas

Para disfrutar de una imagen clara, utilice una antena exterior. A continuación se ofrece una breve explicación de los tipos de conexiones que se utilizan para un cable coaxial. Si su antena exterior utiliza un cable coaxial de 75 ohmios con un conector tipo F, enchúfela al terminal de antena del panel trasero del televisor. Para conectar el cable de la antena al TV, utilice cables comercialmente disponibles.

Conexión de cable de antena

- **Conecte el cable de antena al televisor utilizando uno de los métodos mostrados en la ilustración (①, ②, ③ ó ④).**

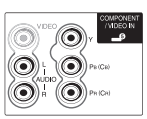
① Cable sin convertidor CATV
② Antenas de VHF/UHF
③ Combinación de antenas de VHF/UHF
④ Antenas de VHF/UHF separadas

* Un sistema de 75 ohmios es generalmente un cable redondo con un conector tipo F que se puede conectar fácilmente a un terminal sin herramientas.
* Un sistema de 300 ohmios es un cable “bifilar” plano que se puede conectar a un terminal de 75 ohmios a través de un adaptador 300/75 ohmios.

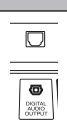
AVISO **El conector del tipo F deberá apretarse con los dedos solamente.**

Cuando conecte el cable de RF al televisor, no apriete el conector tipo F con ninguna herramienta.
Si emplease herramientas podría dañar su televisor.
(La ruptura del circuito interno, etc.)

■ **Connecting to video equipment or PC**
■ **Connexion à un équipement vidéo ou à un ordinateur**
■ **Conexión a un equipo de vídeo o a un PC**

• Image Quality • Qualité de l'image • Calidad de imagen	• Terminal on the TV • Prise sur le téléviseur • Terminal del televisor	• Cable • Câble • Cable	• Terminal on external equipment • Prise sur appareil externe • Terminal del equipo externo	• Pages • Pages • Páginas
• HD Quality • Qualité HD • Calidad HD		• HDMI-certified cable • Câble certifié HDMI • Cable certificado HDMI		**28,30,31**
		• Ø 3.5 mm stereo minijack cable • Câble avec mini-prise stéréo ø 3,5 mm • Cable con miniconector estéreo de 3,5 mm ø • HDMI-certified cable • Câble certifié HDMI • Cable certificado HDMI		**31**
		• Component video cable • Câble vidéo composante • Cable de vídeo componente • Audio cable • Câble audio • Cable de audio		**29**
• Standard Quality • Qualité standard • Calidad estándar		• AV cable • Câble AV • Cable de AV		**29**

■ **Connecting to audio equipment**
■ **Connexion à un équipement audio**
■ **Conexión a un equipo de audio**

• Terminal on the TV • Prise sur le téléviseur • Terminal del televisor	• Cable • Câble • Cable	• Terminal on external equipment • Prise sur appareil externe • Terminal del equipo externo	• Pages • Pages • Páginas
	• Optical fiber cable • Câble à fibre optique • Cable de fibra óptica		**30**
	• Ø3.5 mm stereo minijack to RCA audio cable • Câble audio avec mini-prise stéréo ø 3,5 mm vers RCA • Cable de audio con miniconector estéreo de 3,5 mm ø a RCA		**30**

ENGLISH

Types of Connection

For connecting the TV to external equipment, use commercially available cables.

- The illustrations of the terminals are for explanation purposes and may vary slightly from the actual products.

■ **Connecting to video equipment or PC**

Image quality differs depending on the terminal used. To enjoy clearer images, check the output terminals of your external equipment and use its appropriate terminals for higher quality images.

■ **Connecting to audio equipment**

Check the output terminals of your external equipment and use its appropriate terminals.

FRANÇAIS

Types de connexions

Pour connecter le téléviseur à un équipement externe, utilisez les câbles disponibles commercialement.

- Les illustrations des prises sont fournies à titre d'exemple et peuvent légèrement varier sur les produits réels.

■ **Connexion à un équipement vidéo ou à un ordinateur**

La qualité de l'image diffère en fonction de la prise utilisée. Pour profiter d'images plus claires, vérifiez les prises de sortie de votre appareil externe et utilisez les prises appropriées pour des images de plus grande qualité.

■ **Connexion à un équipement audio**

Vérifiez les bornes de sortie de votre équipement externe et utilisez ses bornes appropriées.

ESPAÑOL

Tipos de conexiones

Para la conexión del televisor a un equipo externo, use cables disponibles comercialmente.

- Las ilustraciones de los terminales son con fines explicativos y es posible que varíen ligeramente con respecto a los productos reales.

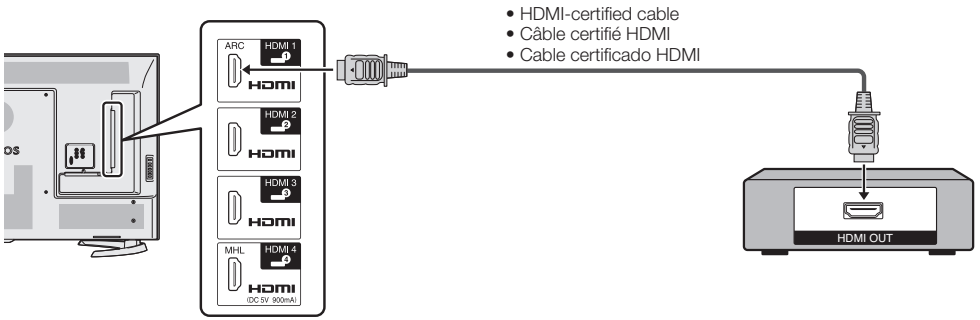
■ **Conexión a un equipo de vídeo o a un PC**

La calidad de imagen difiere según el terminal que se utilice. Para disfrutar de imágenes más claras, verifique los terminales de salida de su equipo externo y utilice los terminales adecuados para obtener imagenes de mejor calidad.

■ **Conexión a un equipo de audio**

Compruebe los terminales de salida del equipo externo y utilice los terminales apropiados.

①



HDMI IN1: 4K60P 4:2:0
HDMI IN2: 4K60P 4:2:0
HDMI IN3: 4K60P 4:4:4
HDMI IN4: 4K60P 4:2:0

ENGLISH

You can connect many types of external equipment to your TV. To view external source images, select the input source by pressing **INPUT** on the remote control unit or on the TV.
For connecting the TV to external equipment, use commercially available cables.

CAUTION

- To protect equipment, always turn off the TV before connecting any external equipment.
- Please read the relevant operation manual (Blu-ray disc player, etc.) carefully before making connections.

Connecting a Blu-ray Disc/DVD Player or HD Cable/Satellite Set-top Box

① When using an HDMI cable (HDMI IN 1, 2, 3 or 4):

- When connecting 4K equipment to the TV, use the HDMI IN 1, 2, 3 or 4 terminal (3840 x 2160(Ultra HD) 60Hz,30Hz, 25Hz, 24Hz are available.).
- Connect 4K signal (HDCP2.2) to the HDMI IN 4 terminal.
- HDMI IN 3 is suitable for 4K(2160p, 4:4:4) signal.
  If there is a problem viewing a signal through the HDMI IN 3 video input,please use either HDMI IN 1, 2 or 4 video input.
- When you connect ARC-compatible equipment, use HDMI IN 1.
- The HDMI (High Definition Multimedia Interface) terminal is an audio-video interface that enables a connection for audio and video signals using a single cable. The HDMI IN terminal supports high-resolution video input.
- To enjoy 1080p display capability, connect your external equipment using an HDMI-certified cable or a component cable and set the equipment to 1080p output.
- Supported Audio format: Linear PCM, Dolby Digital, sampling rate 32/44.1/48kHz.

FRANÇAIS

Vous pouvez raccorder différents types d'appareil externe à votre téléviseur. Pour regarder des images d'une source externe, sélectionnez la source d'entrée à en appuyant sur **INPUT** sur la télécommande ou sur le téléviseur.
Pour connecter le téléviseur à un équipement externe, utilisez les câbles disponibles commercialement.

ATTENTION

- Pour protéger l'appareil, éteignez toujours le téléviseur avant de raccorder un appareil externe.
- Reportez-vous aux modes d'emploi appropriés (lecteur de disque Blu-ray, etc.) avant de procéder aux raccordements.

Raccordement d'un lecteur de disque Blu-ray, lecteur DVD ou boîtier décodeur de réception HD par câble/satellite

① Lors de l'utilisation d'un câble HDMI (HDMI IN 1, 2, 3 ou 4):

- Lors de la connexion d'un équipement 4K au téléviseur, utilisez la prise HDMI IN 1, 2, 3 ou 4 (3840 x 2160 (Ultra HD) 60Hz,30Hz, 25Hz, 24Hz sont disponibles.).
- Connecte les signaux 4K (HDCP2.2) au terminal HDMI IN 4.
- L'HDMI 3 est adaptée à un signal 4K(2160p) 50/60Hz (4: 4: 4).
  Si vous rencontrez un problème pour lire un signal sur l'entrée vidéo HDMI IN 3, merci d'utiliser l'entrée HDMI IN 1, 2 ou 4.
- Lorsque vous raccordez un appareil compatible ARC, utilisez HDMI IN 1.
- La prise HDMI (High Definition Multimedia Interface) est une interface audio-vidéo qui permet une connexion pour des signaux audio et vidéo à l'aide d'un simple câble. La prise HDMI IN prend en charge l'entrée vidéo en haute résolution.
- Pour bénéficier de toutes les fonctionnalités de l'affichage 1080p, branchez l'appareil externe au moyen d'un câble certifié HDMI ou câble composantes et réglez l'appareil sur la sortie 1080p.
- Format audio pris en charge : PCM linéaire, Dolby Digital, taux d'échantillonnage 32/44,1/48 kHz.

ESPAÑOL

Puede conectar muchos tipos de equipos externos a su televisor. Para ver las imágenes de la fuente externa, seleccione la fuente de entrada pulsando **INPUT** en el control remoto o en el televisor.
Para la conexión del televisor a un equipo externo, use cables disponibles comercialmente.

PRECAUCIÓN

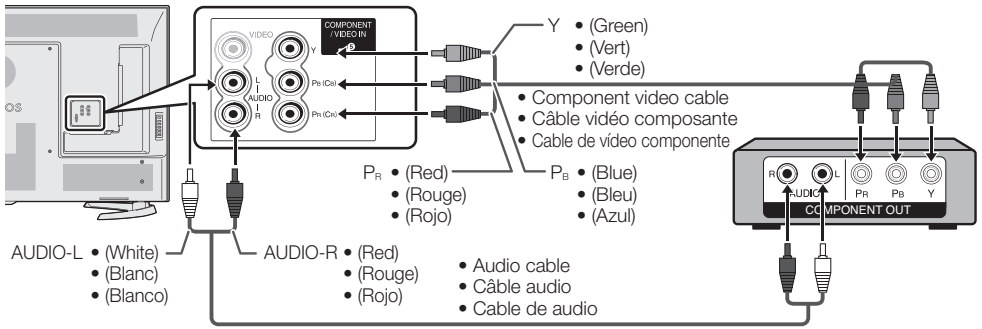
- Para proteger al equipo, apague siempre el televisor antes de conectar cualquier equipo externo.
- Lea cuidadosamente el manual de operación pertinente (reproductor de disco Blu-ray, etc.) antes de hacer las conexiones.

Conexión de un reproductor de disco Blu-ray, reproductor de DVD o decodificador de cable/satélite de HD

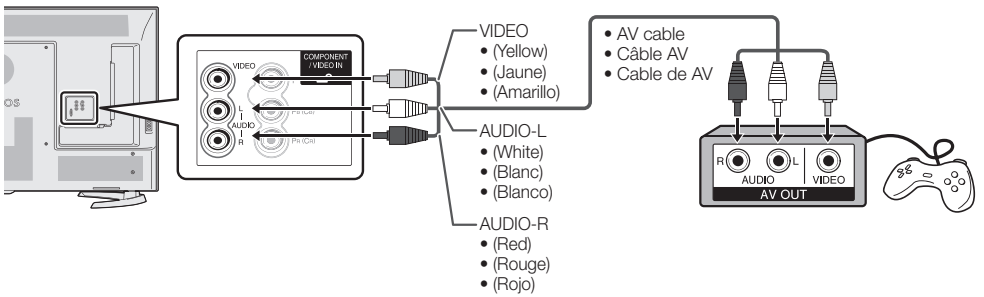
① Cuando se utiliza un cable HDMI (HDMI IN 1, 2, 3 ó 4):

- Cuando conecte un equipo 4K al televisor, utilice el terminal HDMI IN 1, 2, 3 ó 4 (3840 x 2160 (Ultra HD) 60Hz,30Hz, 25Hz, 24Hz están disponibles).
- Conecte señales 4K (HDCP2.2) al terminal HDMI IN 4.
- La entrada HDMI 3 es adecuada para señales de video 4K (2160p) 50/60Hz.(en formato 4: 4: 4) .
  Cuando hay algún problema con la entrada de vídeo HDMI IN 3, utilice alguna de las entradas de vídeo HDMI IN 1, 2 o 4.
- Si conecta un equipo compatible con ARC, utilice HDMI IN 1.
- El terminal de HDMI (High Definition Multimedia Interface) es una interfaz de audio-vídeo que facilita una conexión para señales de audio y vídeo que utiliza un solo cable. El terminal de HDMI IN soporta entrada de vídeo de alta resolución.
- Para disfrutar de las posibilidades de visualización de 1080p, conecte su equipo externo utilizando un cable certificado HDMI o un cable componente y ajuste el equipo a la salida 1080p.
- Formato de audio soportado: PCM lineal, Dolby Digital, frecuencia de muestreo 32/44,1/48kHz.

②



③



ENGLISH

Connecting a Blu-ray Disc/DVD Player or HD Cable/Satellite Set-top Box

② When using a Component cable (COMPONENT IN/VIDEO IN):

- To enjoy 1080p display capability, connect your external equipment using an HDMI-certified cable or a component cable and set the equipment to 1080p output.
- When you connect a component cable to the COMPONENT IN/VIDEO IN terminal, switch COMPONENT/VIDEO select to COMPONENT or Auto.

Connecting a VCR, Game Console, Camcorder or Cable/Satellite Set-top Box

③ When using a Composite cable (COMPONENT IN/VIDEO IN):

- When you connect an AV cable to the COMPONENT IN/VIDEO IN terminal, switch COMPONENT/VIDEO select to VIDEO or Auto.

FRANÇAIS

Raccordement d'un lecteur de disque Blu-ray, lecteur DVD ou boîtier décodeur de réception HD par câble/satellite

② Lors de l'utilisation d'un câble composante (COMPONENT IN/VIDEO IN) :

- Pour bénéficier de toutes les fonctionnalités de l'affichage 1080p, branchez l'appareil externe au moyen d'un câble certifié HDMI ou câble composantes et réglez l'appareil sur la sortie 1080p.
- Lorsque vous connectez un câble composante au terminal COMPONENT IN/VIDEO IN, commutez la COMPONENT/VIDEO sélection sur COMPONENT ou AUTO.

Raccordement d'un magnétoscope, console de jeu, caméscope ou boîtier décodeur de réception par câble/satellite

③ Lors de l'utilisation d'un câble composite (COMPONENT IN/VIDEO IN) :

- Lorsque vous connectez un câble AV au terminal COMPONENT IN/VIDEO IN, commutez la COMPONENT/VIDEO sélection sur VIDEO ou AUTO.

ESPAÑOL

Conexión de un reproductor de disco Blu-ray, reproductor de DVD o decodificador de cable/satélite de HD

② Cuando se utiliza un cable componente (COMPONENT IN/VIDEO IN):

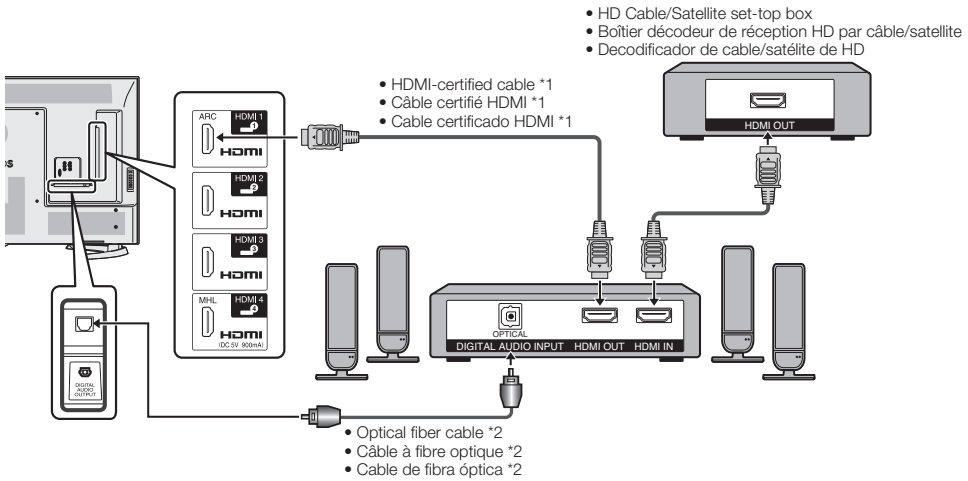
- Para disfrutar de las posibilidades de visualización de 1080p, conecte su equipo externo utilizando un cable certificado HDMI o un cable componente y ajuste el equipo a la salida 1080p.
- Al conectar un cable de componentes al terminal COMPONENT IN/VIDEO IN, cambie Selección COMPONENTE/VIDEO a COMPONENTE o AUTO.

Conexión de una videograbadora, una consola de videojuegos, una videocámara o un decodificador de cable/satélite

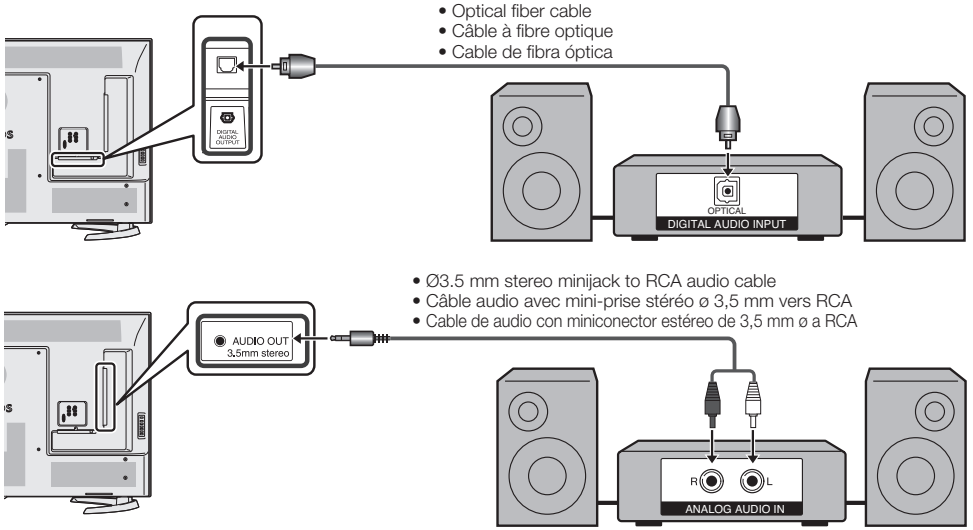
③ Cuando se utiliza un cable de vídeo compuesto (COMPONENT IN/VIDEO IN):

- Al conectar un cable AV al terminal COMPONENT IN/VIDEO IN, cambie Selección COMPONENTE/VIDEO a VIDEO o AUTO.

④



⑤


• Optical fiber cable
• Câble à fibre optique
• Cable de fibra óptica
OPTICAL
DIGITAL AUDIO INPUT
• Ø3.5 mm stereo minijack to RCA audio cable
• Câble audio avec mini-prise stéréo ø 3,5 mm vers RCA
• Cable de audio con miniconector estéreo de 3,5 mm ø a RCA
AUDIO OUT
3.5mm stereo
R
L
ANALOG AUDIO IN

ENGLISH

Connecting a Surround System/Audio System

④ When connecting an AV amplifier for a surround system

- Letting the TV output the audio to an AV amplifier:
  *1 When you connect ARC-compatible equipment, use HDMI IN 1.
  *2 If the equipment to be connected is not compatible with the ARC, connect an optical fiber cable to the DIGITAL AUDIO OUT terminal.
- If the image is not in sync with the audio, check the settings of the connected surround system.

⑤ When connecting an audio amplifier

It is possible to output audio through the DIGITAL AUDIO OUT terminal.

- In this case, set "Audio Setup" to "PCM" or "Bitstream". (Refer to built-in operation manual.)

FRANÇAIS

Raccordement d'un système ambiophonique/un système audio

④ Lors de la connexion d'un amplificateur AV pour un système ambiophonique

- Laisser le téléviseur reproduire l'audio sur un amplificateur AV :
  *1 Lorsque vous raccordez un appareil compatible ARC, utilisez HDMI IN 1.
  *2 Si l'équipement à raccorder n'est pas compatible ARC, raccordez un câble en fibre optique sur la prise de sortie DIGITAL AUDIO OUT.
- Si l'image n'est pas synchronisée avec le son, vérifiez les réglages du système ambiophonique raccordé.

⑤ Lors de la connexion d'un amplificateur audio

Il est possible d'émettre un son audio via la prise de sortie DIGITAL AUDIO OUT.

- Dans ce cas, réglez « Réglage audio » sur « PCM » ou « Flux binaire ». (Reportez-vous au mode d'emploi intégré)

ESPAÑOL

Conexión a un sistema de sonido envolvente/sistema de audio

④ Conexión a un amplificador de AV para un sistema de sonido envolvente

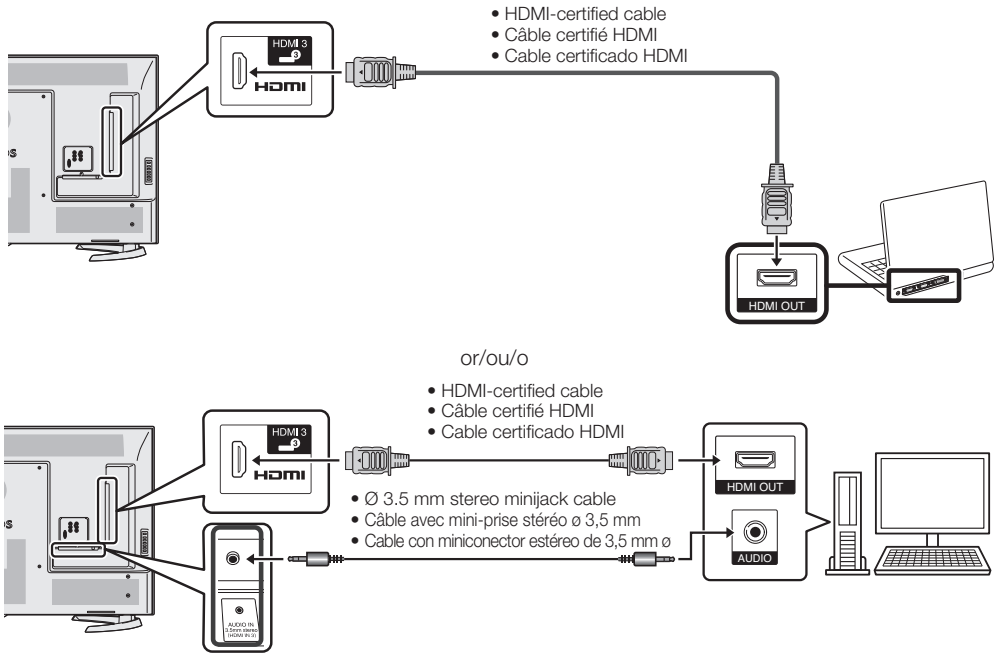
- Para dejar que el televisor emita el audio a un amplificador AV:
  *1 Si conecta un equipo compatible con ARC, utilice HDMI IN 1.
  *2 Si el equipo que va a conectar no es compatible con ARC, conecte un cable de fibra óptica en el terminal DIGITAL AUDIO OUT.
- Si la imagen no está sincronizada con el audio, compruebe los ajustes del sistema de sonido envolvente conectado.

⑤ Conexión a un amplificador de audio

Es posible dar salida de audio a través del terminal DIGITAL AUDIO OUT.

- En tal caso, seleccionar "Ajuste de audio" en "PCM" o en "Flujo de bits". (Consulte el Manual de instrucciones integrado.)

⑥



ENGLISH

Connecting a PC

Refer to built-in operation manual for a list of PC signals compatible with the TV.

⑥ When using an HDMI cable (HDMI IN 3):

- Depending on the board, only video signals may be output. In this case, in addition to connecting an HDMI-certified cable to the HDMI IN 3 terminal, connect a Ø 3.5 mm stereo minijack cable to the AUDIO IN terminal and set "Audio Select" to "HDMI+Analog". (Refer to built-in operation manual.)
- The HDMI IN terminals only support digital signal.

FRANÇAIS

Raccordement d'un ordinateur

Reportez-vous au mode d'emploi intégré pour la liste des signaux d'ordinateur compatibles avec le téléviseur.

⑥ Lors de l'utilisation d'un câble HDMI (HDMI IN 3) :

- Selon la carte, il est possible que seuls des signaux vidéo puissent être envoyés sur la sortie. Dans ce cas, outre la connexion d'un câble certifié HDMI sur la prise HDMI IN 3, connectez un câble avec mini-prise stéréo ø 3,5 mm sur la prise AUDIO IN et réglez « Sélection Audio » sur « HDMI + analogique ». (Reportez-vous au mode d'emploi intégré)
- Les prises HDMI IN ne prennent en charge que le signal numérique.

ESPAÑOL

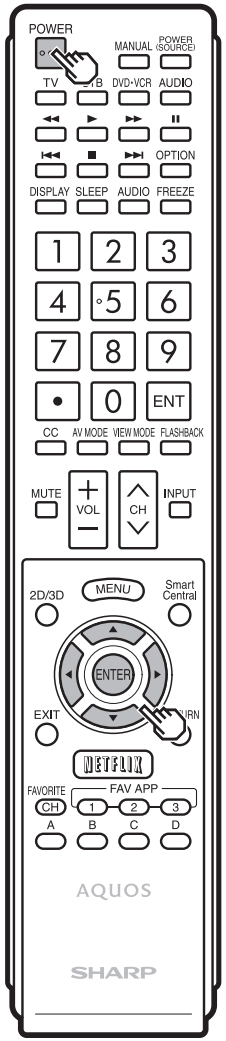
Conexión de un PC

Consulte el Manual de instrucciones integrado para conocer una lista de las señales de PC compatibles con el televisor.

⑥ Cuando se utiliza un cable HDMI (HDMI IN 3):

- Dependiendo de la tarjeta, solamente se podrán sacar señales de vídeo. En este caso, en adición a conectar un cable certificado HDMI al terminal HDMI IN 3, conecte un cable con miniconector estéreo de 3,5 mm ø al terminal AUDIO IN y ajuste “Selección Audio” a “HDMI + Análogo”. (Consulte el Manual de instrucciones integrado.)
- Los terminales HDMI IN solamente soportan señal digital.

Watching TV/Pour regarder la télévision/Para ver TV



ENGLISH

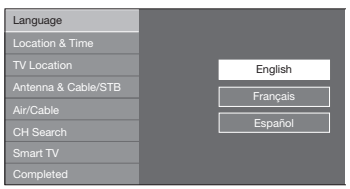
Initial Installation

Perform the following steps before you press **POWER** on the remote control unit.

1. Insert the batteries into the remote control unit.
2. Connect the antenna cable to the TV.
3. Plug in the AC cord to the AC outlet.

Language (Language setting)
Select from among 3 languages: English, French and Spanish.

1. Press ▲/▼ to select the desired language listed on the screen, and then press **ENTER**.



Location & Time
Make settings for the country, area and time zone where you use the TV.

2. Press ▲/▼ to select "United States", "Canada" or "Mexico", and then press **ENTER**.
3. Press ▲/▼ to select the time zone where you are using the TV, and then press **ENTER**.
4. Press ▲/▼ to select the Daylight Savings Time, and then press **ENTER**.

FRANÇAIS

Installation initiale

Procédez aux étapes suivantes avant d'appuyer sur
POWER de la télécommande.

1. Introduisez les piles dans la télécommande.
2. Branchez le câble d'antenne sur le téléviseur.
3. Branchez le cordon secteur dans la prise secteur.

Langue (Réglage de la langue)
Sélectionnez parmi 3 langues : anglais, français et espagnol.

1. Appuyez sur ▲/▼ pour sélectionner la langue désirée sur la liste à l'écran, et appuyez ensuite sur **ENTER**.

Lieu et heure
Effectuez les réglages pour le pays, la zone et le fuseau horaire où vous utilisez le téléviseur.

2. Appuyez sur ▲/▼ pour sélectionner « États-Unis », « Canada » ou « Mexique », et appuyez ensuite sur **ENTER**.
3. Appuyez sur ▲/▼ pour sélectionner le fuseau horaire où vous utilisez le téléviseur, et appuyez ensuite sur **ENTER**.
4. Appuyez sur ▲/▼ pour sélectionner l'heure d'été, et appuyez ensuite sur **ENTER**.

ESPAÑOL

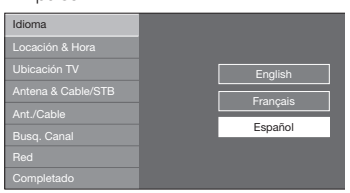
Preparación inicial

Ejecute los pasos siguientes antes de pulsar **POWER** en el control remoto.

1. Inserte las pilas en el control remoto.
2. Conecte el cable de la antena al televisor.
3. Enchufe el cable de CA en la toma de CA.

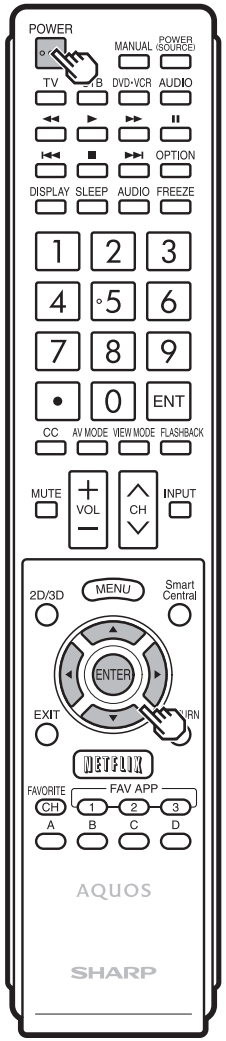
Idioma (Ajuste de idioma)
Seleccione entre 3 idiomas: Inglés, Francés y Español.

1. Pulse ▲/▼ para seleccionar el idioma deseado listado en la pantalla, y luego pulse **ENTER**.



Locación & Hora
Realice los ajustes de acuerdo con el país, área y zona horaria en la que utiliza el televisor.

2. Pulse ▲/▼ para seleccionar “Estados Unidos”, “Canadá” o “México”, y luego pulse **ENTER**.
3. Pulse ▲/▼ para seleccionar la zona horaria en la que utiliza el televisor, y luego pulse **ENTER**.
4. Pulse ▲/▼ para seleccionar Horario de Verano, y luego pulse **ENTER**.



ENGLISH

TV Location
Select "Home" or "Store" for the location where you plan to install the TV.

5 Press ◀/▶ to select "Home" or "Store".
Press **ENTER** to enter the setting.

Antenna & Cable/STB
Select the type of connection you will use to watch TV.

6 Press ◀/▶ to select "Antenna & Cable" or "Set-top box", and then press **ENTER**.

Air/Cable (Antenna setting)
Make sure what kind of connection is made with your TV when selecting "Air" or "Cable".

7 Press ◀/▶ to select "Air" or "Cable".
Press **ENTER** to enter the setting.

CH Search (Channel search)
Channel auto search makes the TV look for all channels viewable in the set area.

8 **When "Air" is selected in Antenna setting:**
Press ◀/▶ to select "Start", and then press **ENTER**.

Smart TV
When you connect to the Internet on the TV, select the desired connection method and follow the instructions shown on the display.

9 Press ◀/▶ to select "Yes", and then press **ENTER**.

10 Press ▲/▼ to select "Wired" or "Wireless", and then press **ENTER**.

FRANÇAIS

Emplacement TV
Sélectionnez « Maison » ou « Magasin » comme emplacement d'installation du téléviseur.

5 Appuyez sur ◀/▶ pour sélectionner « Maison » ou « Magasin ».
Appuyez sur **ENTER** pour valider le réglage.

Antenne&câble/boîtier
Sélectionnez le type de connexion que vous utiliserez pour regarder la TV.

6 Appuyez sur ◀/▶ pour sélectionner « Antenne&câble » ou « Boîtier décodeur », et appuyez ensuite sur **ENTER**.

Ant/Câble (Réglage de l'antenne)
Vérifiez le type de branchement qui est effectué avec votre téléviseur « Ant » ou « Câble ».

7 Appuyez sur ◀/▶ pour sélectionner « Ant » ou « Câble ».
Appuyez sur **ENTER** pour valider le réglage.

Rech. Canal (Recherche des canaux)
Avec la recherche automatique des canaux, le téléviseur recherche tous les canaux visibles dans la région déterminée.

8 **Avec « Ant » sélectionné dans Réglage de l'antenne :**
Appuyez sur ◀/▶ pour sélectionner « Début », et appuyez ensuite sur **ENTER**.

Smart TV
Lorsque vous vous connectez à Internet via le téléviseur, sélectionnez la méthode de connexion souhaitée et suivez les instructions apparaissant à l'écran.

9 Appuyez sur ◀/▶ pour sélectionner « oui », et appuyez ensuite sur **ENTER**.

10 Appuyez sur ▲/▼ pour sélectionner « À fil » ou « Sans fil », et appuyez ensuite sur **ENTER**.

ESPAÑOL

Ubicación TV
Seleccione “Casa” o “Tienda” según el lugar en el que va a instalar el televisor.

5 Pulse ◀/▶ para seleccionar “Casa” o “Tienda”.
Pulse **ENTER** para introducir el ajuste.

Antena & Cable/STB
Seleccione el tipo de conexión que utilizará para ver la televisión.

6 Pulse ◀/▶ para seleccionar “Antena & Cable” o “Set-Top Box”, y luego pulse **ENTER**.

Ant./Cable (Ajuste de antena)
Asegúrese de la clase de conexión que se hace con su televisor cuando se selecciona “Antena” o “Cable”.

7 Pulse ◀/▶ para seleccionar “Antena” o “Cable”.
Pulse **ENTER** para introducir el ajuste.

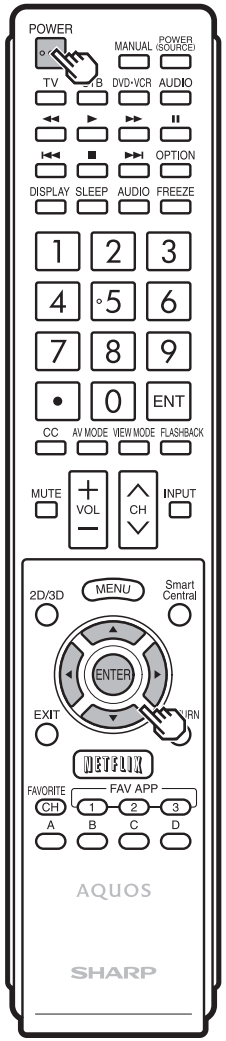
Busq. Canal (Búsqueda de canales)
La búsqueda automática de canales hace que el televisor busque todos los canales que puedan verse en la zona establecida.

8 **Cuando “Antena” está seleccionado en el ajuste Antena:**
Pulse ◀/▶ para seleccionar “Inicio”, y luego pulse **ENTER**.

Smart TV
Cuando se conecte a Internet en el televisor, seleccione el método de conexión deseado y siga las instrucciones que aparecen en la pantalla.

9 Pulse ◀/▶ para seleccionar “Sí”, y luego pulse **ENTER**.

10 Pulse ▲/▼ para seleccionar “Alámbrico” o “Inalámbrico”, y luego pulse **ENTER**.



ENGLISH

Completed

11 The settings confirmation screen is displayed. Confirm the information displayed on the screen, and then press **ENTER**.

Examples of the settings confirmation screen

Language	: English
Location & Time	: United States/EST/Auto
TV Location	: Home
Antenna & Cable/STB	: Antenna & Cable
Air/Cable	: Air
Search Result	: Digital 4ch Analog 7ch
Network Connection	: Not completed

Press the INPUT button, then the right arrow ►, to see the list of channels found.

OK

FRANÇAIS

Terminé

11 L'écran de confirmation des réglages est affiché. Confirmez les informations affichées à l'écran, et appuyez ensuite sur **ENTER**.

Exemples de l'écran de confirmation des réglages

Langue	: Français
Lieu et heure	: États-Unis/HNE/Auto
Emplacement TV	: Maison
Antenne&câble/boîtier	: Antenne&câble
Ant/Câble	: Ant
Résultat d'interrogation	: Numériqu 4 ch Analogiqu 7 ch
Connexion réseau	: Pas complété

Appuyez sur la touche INPUT, puis sur la flèche droite ►, pour voir la liste des canaux.

OK

ESPAÑOL

Completado

11 Se visualiza la pantalla de confirmación de los ajustes. Confirme la información que se muestra en la pantalla y después pulse **ENTER**.

Ejemplos de la pantalla de confirmación de ajustes

Idioma	: Español
Locación & Hora	: Estados Unidos/Este/Auto
Ubicación TV	: Casa
Antena & Cable/STB	: Antena & Cable
Ant./Cable	: Antena
Resultado de Búsqueda	: Digital 4 ch Analógico 7 ch
Conexión de red	: No completa

Pulse el botón INPUT y, a continuación, la flecha a la derecha ►, para ver la lista de canales encontrados.

Bien

Viewing the Built-in Operation Manual/Affichage du mode d'emploi intégré/Visualización del Manual de instrucciones integrado

ENGLISH

Viewing the Built-in Operation Manual

Press **MANUAL** on the remote control unit to display operation information on the screen.
To search for an item from the table of contents, and to search for a particular term and to find troubleshooting information, press **MANUAL** while watching the TV and then select the applicable item from the manual cover page that appears.

1 Press **MANUAL** while watching the TV.
This displays the e-manual screen.

2 When you select contents, its page will be displayed.

NOTE

- You can also display the built-in operation manual by selecting "Information" > "Manual" from the menu screen.
- When USB mode, Home Network mode, or Internet application is used, can not be displayed the built-in operation manual.

FRANÇAIS

Affichage du mode d'emploi intégré

Appuyez sur **MANUAL** de la télécommande pour afficher les informations de fonctionnement sur l'écran. Pour rechercher un élément dans la table des matières et pour rechercher un terme particulier et trouver des informations en vue du dépannage, appuyez sur **MANUAL** tout en regardant la télévision puis sélectionnez l'élément applicable sur la page de garde du manuel qui s'ouvre alors.

1 Appuyez sur **MANUAL** pendant que vous regardez la télévision.
Ceci affiche l'écran du manuel électronique.

2 Si vous sélectionnez un contenu, la page correspondante s'affiche.

REMARQUE

- Vous pouvez également afficher le mode d'emploi intégré en sélectionnant « Renseignements » > « Manual » dans l'écran menu.
- Le mode d'emploi intégré ne peut pas être utilisé en mode USB, en mode réseau ou lorsqu'une application Internet est utilisée.

ESPAÑOL

Visualización del Manual de instrucciones integrado

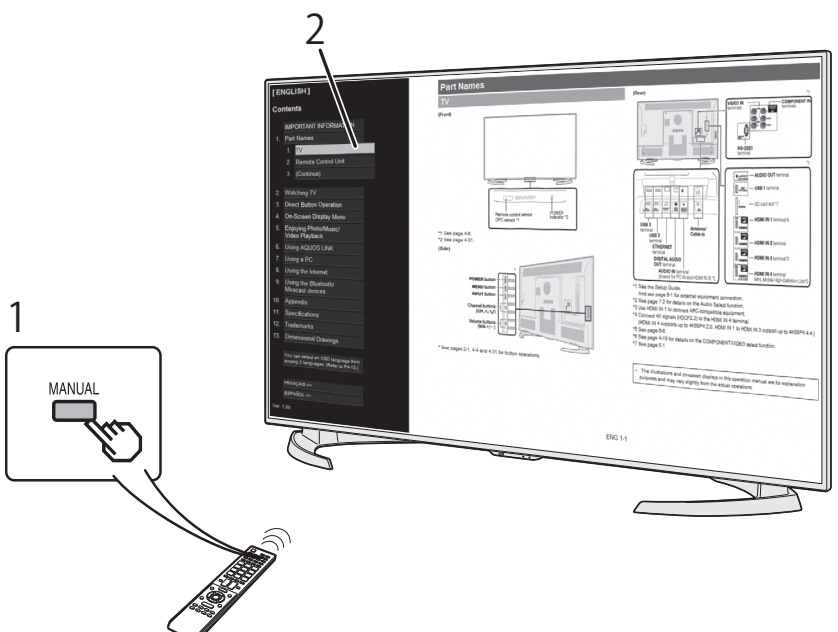
Pulse **MANUAL** en el control remoto para ver información sobre operaciones en la pantalla. Para buscar un elemento de índice o buscar un elemento en particular para obtener información sobre resolución de problemas, pulse **MANUAL** mientras ve la televisión, y luego seleccione el elemento correspondiente en la portada del manual que aparece.

1 Pulse **MANUAL** mientras ve la televisión.
Aparece el manual electrónico en pantalla.

2 Cuando seleccione un contenido, se mostrará la página correspondiente.

NOTA

- También puede ver el manual de instrucciones integrado seleccionando "Información" > "Manual" en la pantalla del menú.
- Cuando se utilice el modo USB, el modo Red doméstica o Aplicación de Internet, no podrá visualizar el manual de instrucciones integrado.



Troubleshooting/Guide de dépannage/Solución de problemas

ENGLISH

Problem	Possible Solution
• No power	• Check if you pressed **POWER** on the remote control unit. ➡ **Page 24.** • Is the AC cord disconnected? ➡ **Page 23.** • Has the power been turned on? ➡ **Page 24.**
• Remote control unit does not operate.	• Are batteries inserted with polarity (+, –) aligned? ➡ **Page 25.**
• No picture	• Is connection to other components correct? ➡ **Page 27 to 31.**
• No sound	• Is connection to other components correct? ➡ **Page 27 to 31.**

FRANÇAIS

Problème	Solution possible
• Appareil hors tension	• Vérifiez si vous avez appuyé sur le bouton marche (**POWER**) de la télécommande. ➡ **Page 24.** • Le câble secteur est-il débranché ? ➡ **Page 23.** • L'alimentation a-t-elle été activée ? ➡ **Page 24.**
• La télécommande ne fonctionne pas.	• Les piles sont-elles insérées avec la polarité (+, –) requise ? ➡ **Page 25.**
• Aucune image	• La connexion avec les autres composants est-elle correcte ? ➡ **Page 27 a 31.**
• Absence de son	• La connexion avec les autres composants est-elle correcte ? ➡ **Page 27 a 31.**

ESPAÑOL

Problema	Posible solución
• No hay alimentación eléctrica	• Compruebe si ha pulsado **POWER** en el control remoto. ➡ **Página 24.** • ¿Está desconectado el cable de CA? ➡ **Página 23.** • ¿Se ha conectado la alimentación? ➡ **Página 24.**
• El control remoto no funciona.	• ¿Se han insertado las batería con la polaridad (+, –) alineada? ➡ **Página 25.**
• No hay imagen	• ¿Está correcta la conexión a otros componentes? ➡ **Páginas 27 a 31.**
• No hay sonido	• ¿Está correcta la conexión a otros componentes? ➡ **Páginas 27 a 31.**

CLEARING THE SECRET NUMBER

If you forget the secret number, clear the secret number using the following procedure.

1 Select an item to display the secret number input screen.

2 Press and hold both CH∧ and VOL**+** on the TV simultaneously until the message appears on the screen.

NOTE

• As a precautionary measure, make a note of your secret number above, and keep it in a safe place.

The secret number is | | | | | **.**

EFFACER LE NUMÉRO SECRET

Si vous avez oublié votre numéro secret, effacez-le en procédant comme suit.

1 Sélectionnez une rubrique pour afficher l'écran de saisie du numéro secret.

2 Maintenez enfoncées simultanément CH∧ et VOL**+** sur le téléviseur jusqu'à ce que le message apparaisse à l'écran.

REMARQUE

• Par mesure de précaution, notez votre numéro secret ci-dessus, et conservez-le dans un endroit sûr.

Le numéro secret est | | | | | **.**

BORRADO DEL NÚMERO SECRETO

Si olvida el número secreto, borre el número secreto usando el siguiente procedimiento.

1 Seleccione un elemento para visualizar la pantalla de introducción del número secreto.

2 Pulse y mantenga pulsados CH∧ y VOL**+** simultáneamente en el televisor hasta que en la pantalla aparezca el mensaje.

NOTA

• Como medida de precaución, anote más arriba su número secreto, y guárdelo en un lugar seguro.

El número secreto es | | | | | **.**

Calling for Service

For location of the nearest Sharp Authorized Service, or to obtain product literature, accessories, supplies, or customer assistance, please call 1-800-BE-SHARP.

LIMITED WARRANTY

CONSUMER LIMITED WARRANTY

SHARP ELECTRONICS CORPORATION warrants to the first consumer purchaser that this Sharp brand Liquid Crystal Display product (the "Product"), when shipped in its original container, will be free from defective workmanship and materials, and agrees that it will, at its option, either repair the defect or replace the defective Product or part thereof with a new or remanufactured equivalent at no charge to the purchaser for parts or labor for the period(s) set forth below.

This warranty does not apply to any appearance items of the Product or if the serial number or model number affixed to the Product has been removed, defaced, changed, altered or tampered with. This warranty does not cover installation or signal reception problems. This limited warranty will not apply if the Product has been or is being used in a commercial setting or application; this warranty is meant solely for the non-commercial, household use of the Product by consumers in their home or residence. If you intend to or already use this Product for commercial purposes or in a commercial setting, there are warranties available to cover your use of this Product, the terms of which may vary. Please contact **1-888-GO-SHARP** for further information.

In order to enforce your rights under this limited warranty, you should follow the steps set forth below. You must be able to provide proof of purchase to the servicer, which proof must include the date of purchase.

To the extent permitted by applicable state law, the warranties set forth are in lieu of, and exclusive of, all other warranties, express or implied. Specifically ALL OTHER WARRANTIES OTHER THAN THOSE SET FORTH ABOVE ARE EXCLUDED, ALL EXPRESS AND IMPLIED WARRANTIES INCLUDING THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR USE, AND FITNESS FOR A PARTICULAR PURPOSE ARE SPECIFICALLY EXCLUDED. IF, UNDER APPLICABLE STATE LAW, IMPLIED WARRANTIES MAY NOT VALIDLY BE DISCLAIMED OR EXCLUDED, THE DURATION OF SUCH IMPLIED WARRANTIES IS LIMITED TO THE PERIOD(S) FROM THE DATE OF PURCHASE SET FORTH BELOW. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

The warranties given herein shall be the sole and exclusive warranties granted by Sharp and shall be the sole and exclusive remedy available to the purchaser and only for the time periods set forth herein. No other representations or promises made by anyone are permitted. Correction of defects, in the manner and for the period of time described herein, shall constitute complete fulfillment of all liabilities and responsibilities of Sharp to the purchaser with respect to the Product, and shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. Sharp does not warrant nor shall Sharp be liable, or in any way
responsible, for Products which have been subject to abuse (including, but not limited to, improper voltage), accident, misuse, negligence, lack of reasonable care, alteration, modification, tampering, misuse, improper operation or maintenance or any damages or defects in the Product which were caused by repairs or attempted repairs performed by anyone other than a Sharp authorized servicer. Nor shall Sharp be liable or in any way responsible for any incidental or consequential economic or property damage. Some states do not allow limits on warranties or on remedies for breach in certain transactions; in such states, the limits herein may not apply.

THIS LIMITED WARRANTY IS VALID ONLY IN THE FIFTY (50) UNITED STATES, THE DISTRICT OF COLUMBIA AND PUERTO RICO.

Model Specific Section

Your Product Model Number & Description:	LC-70UD27U/LC-60UD27U LCD Color Television (Be sure to have this information available when you need service for your Product.)
Warranty Period for this Product:	One (1) year parts and labor from the date of purchase.
Additional Exclusions from Warranty Coverage (if any):	In order for the Product to be serviced, the Product must be readily available to the servicer, free and clear of any complex or non-standard installation, mounting or other encumbrance which would unreasonably interfere with servicing the Product. The Servicer will remount the Product after service, provided that such remounting is not into a complex or non-standard installation. Any additional labor and materials required to remove and/or reinstall a Product above and beyond the foregoing are not covered by this warranty, may result in additional charges and are the responsibility of the consumer. Image Retention resulting from a fixed image being displayed for long periods of time is not covered by this Limited Warranty (see Operation Manual on how to prevent this).
Where to Obtain Service:	From a Sharp Authorized Servicer located in the United States. To find the location of the nearest Sharp Authorized Servicer, please call Sharp toll free at 1-800-BE-SHARP.
What to do to Obtain Service:	Contact your Sharp Authorized Servicer to obtain in home service for this product. The Servicer will come to your location and if necessary remove the unit for repair at the Servicer's facility and return the set to you once completed. Be sure to have Proof of Purchase available.

TO OBTAIN PRODUCT INFORMATION OR PURCHASE ACCESSORIES AND EXTENDED WARRANTIES, CALL
1-800-BE-SHARP
OR VISIT www.sharpusa.com

SHARP®

LIMITED WARRANTY

Consumer Electronics Products

Congratulations on your purchase!

Sharp Electronics of Canada Ltd. ("Sharp") warrants to the first purchaser for this Sharp brand product ("Product"), when shipped in its original container and sold or distributed in Canada by Sharp or by an authorized Sharp dealer, and Product was not sold "as is" or "sales final" that the Product will during the applicable warranty period, be free from defects in material and workmanship, and will within the applicable warranty period, either repair the defective Product or provide the first purchaser a replacement of the defective Product.

Conditions: This limited warranty shall not apply to:

(a) Any defects caused or repairs required as a result of abusive operation, negligence, accident, improper installation or inappropriate use as outlined in the owner's manual or other applicable Product documentation.
(b) Any defects caused or repairs required as a result of any Product that has been tampered with, modified, adjusted or repaired by any person other than Sharp, a Sharp authorized service centre or a Sharp authorized servicing dealer.
(c) Any defects caused or repairs required as a result of the use of the Product with items not specified or approved by Sharp, including but not limited to, head cleaning tapes and chemical cleaning agents.
(d) Any replacement of accessories, glassware, consumable or peripheral items required through normal use of the Product, including but not limited to, earphones, remote controls, AC adapters, batteries, temperature probe, trays, filters, belts, ribbons, cables and paper.
(e) Any cosmetic damage to the Product surface or exterior that has been defaced or caused by normal wear and tear.
(f) Any defects caused or repairs required as a result of damage caused by any external or environmental conditions, including but not limited to, transmission line/power line voltage or liquid spillage or acts of God.
(g) Warranty claims for Products returned with illegible or without appropriate model, serial number and CSA/cUL markings.
(h) Any Products used for rental or commercial purposes.
(i) Any installation, delivery, setup and/or programming charges
(j) The removal and reinstallation of Over-The-Range Microwave or Microwave Drawer if it is installed in an inaccessible location or requiring removal of cupboards, handles or other cosmetic parts, or is not installed in accordance with installation instructions included with Product.

How to get service: Warranty service may be obtained upon delivery of the Product, together with proof of purchase (including date of purchase) and a copy of this limited warranty statement, to an authorized Sharp service centre or an authorized Sharp servicing dealer. In home warranty service will be carried out to locations accessible by on-road service vehicle and within 50 km of an authorized Sharp service centre on any Sharp Television with the screen size of 42" or larger and on any Over-The-Range Microwave Oven or Microwave Drawer Oven. The servicer may if necessary take the unit for repair at the servicer's facility. No other person (including any Sharp dealer or service centre) is authorized to extend, enlarge or transfer this warranty on behalf of Sharp. The purchaser will be responsible for any and all removal, reinstallation, transportation and insurance costs incurred with exception for Over-The-Range Microwave Oven or Microwave Drawer Oven whereby Sharp will be responsible for the removal and reinstallation.

The express warranties in this limited warranty are, except for consumer purchasers domiciled in Quebec, in lieu of and, except to the extent prohibited by applicable law, Sharp disclaims all other warranties and conditions, express or implied, whether arising by law, statute, by course of dealing or usage of trade, including, without limitation, implied warranties or conditions of merchantability and/or quality, fitness for a particular use or purpose, and/or non-infringement. **Limitations** (not applicable to consumer purchasers domiciled in Quebec to the extent prohibited under Quebec law): (a) Sharp shall not be liable for any incidental, special, consequential, economic, exemplary or indirect damages of any kind or nature (including lost profits or damages for loss of time or loss of use or loss of data) arising from or in any connection with the use or performance of a Product or a failure of a Product, even if Sharp is aware of or has been advised of the possibility of such damages; (b) the remedies described in this limited warranty constitute complete fulfillment of all obligations and responsibilities of Sharp to the purchaser with respect to the Product and shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. Some provinces may not allow the exclusion or limitation of certain damages, or limits on the duration or voiding of implied warranties or conditions; in such provinces, the exclusions and limits herein may not apply. This limited warranty is, except for consumer purchasers domiciled in Quebec, governed by the laws of the Province in Canada in which the purchaser has purchased the Product. For consumer purchasers domiciled in Quebec this limited warranty is governed by the laws of Quebec.

WARRANTY PERIODS (calculated from the date of original purchase): Parts & Labour (exceptions noted)

Audio Product	1 year
Blu-Ray Product	1 year
Projector	1 year (lamp 90 days)
LCD/LED TV	1 year
Microwave Oven	1 year (magnetron - 4 additional years)
Air Purifier	1 year
Portable Air Conditioner	1 year
Plasmacluster Ion Generator	1 year
3D Glasses	1 year
Wireless LAN Adapter	1 year

To obtain the name and address of the nearest Authorized Sharp Service Centre or Dealer, or for more information on this Limited Warranty, Sharp Extended Warranty Offers, Sharp Canada Products or Accessory Sales, please contact Sharp:

- By writing to Sharp Electronics Of Canada Ltd. at 335 Britannia Road East Mississauga, Ontario L4Z 1W9
- Calling: at 905-568-7140
- Visiting our Web site: www.sharp.ca

TO BE THE BEST SHARP SERVICE THROUGH CUSTOMER SATISFACTION

THIS LIMITED WARRANTY IS VALID ONLY IN CANADA

Revision: 03/01/13

SHARP®

GARANTIE LIMITÉE

Électronique grand public

Bravo! Vous venez de faire un excellent achat!

Sharp Électronique du Canada Ltée (« Sharp ») garantit à l'acheteur initial de ce produit de marque Sharp (le « produit ») que, s'il est emballé dans son contenant original et s'il est vendu ou distribué au Canada par Sharp ou par un détaillant autorisé Sharp, et s'il n'a pas été vendu « tel quel » ou s'il ne s'agissait pas d'une « vente ferme », le produit est exempt de défaut de fabrication et de vice de matériau pour la période de garantie stipulée et s'engage auprès de l'acheteur initial et durant ladite période à réparer la défectuosité ou à remplacer le produit défectueux.

Conditions : La présente garantie limitée ne s'applique pas :

(a) Aux dommages causés ou aux réparations requises sur les appareils qui ont fait l'objet d'un emploi abusif, de négligence, d'un accident, d'une installation inadéquate ou d'une utilisation non appropriée, tel qu'il est mentionné dans le manuel du propriétaire ou dans toute autre documentation applicable sur le produit;
(b) Aux dommages causés ou aux réparations requises sur les produits Sharp trafiqués, modifiés, réglés ou réparés par une entité autre que Sharp, un centre agréé de service Sharp ou un détaillant autorisé au service Sharp;
(c) Aux dommages causés ou aux réparations requises à la suite de l'utilisation du produit avec des articles non désignés ou approuvés par Sharp, y compris, mais sans en être limité, des rubans pour nettoyage de tête et des agents de nettoyage chimiques;
(d) Au remplacement des accessoires, des pièces en verre, des articles consommables ou des périphériques, devenu nécessaire à la suite d'une utilisation normale du produit, y compris, mais sans en être limité, les écouteurs, les télécommandes, les adaptateurs c.a., les piles, la sonde de température, les plateaux, les filtres, les courroies, les câbles et le papier;
(e) Aux défauts cosmétiques à la surface ou au boîtier extérieur du produit, et qui sont attribuables à la détérioration ou à l'usure résultant d'un usage normal.
(f) Aux défectuosités causées ou aux réparations requises à la suite de dommages causés par des conditions extérieures et relatives à l'environnement, y compris, mais sans en être limité, une tension de la ligne électrique ou de transmission trop élevée, du liquide répandu ou une catastrophe naturelle;
(g) Aux réclamations de garantie des produits dont les numéros de série et de modèle, ainsi que l'attestation CSA/CUL sont inappropriés ou illisibles;
(h) Aux produits utilisés à des fins commerciales ou de location;
(i) Aux coûts d'installation, de livraison, de configuration et (ou) de programmation.
(j) Le démontage et la réinstallation d'un four à micro-ondes à hotte intégrée ou d'un tiroir à micro-ondes si l'appareil est installé dans un endroit inaccessible, si des armoires, des poignées ou d'autres pièces décoratives doivent être enlevées ou si l'appareil n'est pas installé conformément aux directives d'installation du produit.

Pour obtenir un service après-vente : La réparation sous garantie est offerte à la condition que le produit Sharp soit livré avec la preuve d'achat (sur laquelle est indiquée la date d'achat) et une copie de la présente garantie limitée à un centre agréé de service Sharp ou chez un détaillant autorisé au service Sharp. La réparation sur place sous garantie sera effectuée aux endroits accessibles par véhicule routier et situés à moins de 50 km d'un centre agréé de service Sharp sur tout téléviseur Sharp doté d'un écran de 42 po ou plus et sur tout four à micro-ondes à hotte intégrée ou tiroir à micro-ondes Sharp. Le technicien peut, au besoin, ramener l'appareil à son atelier pour en faire la réparation. Aucune autre entité (y compris les détaillants et les centres de service Sharp) n'est autorisée à prolonger la durée de la garantie, à fournir des garanties autres ou à transférer cette garantie au nom de Sharp. L'acheteur doit assumer tous les coûts de démontage, de réinstallation, de transport et d'assurance de l'appareil, à l'exception de tout four à micro-ondes à hotte intégrée ou tiroir à micro-ondes pour lequel Sharp est responsable du démontage et de la réinstallation.

Les garanties expresses de la présente garantie limitée remplacent et Sharp décline, sauf pour les consommateurs-acheteurs domiciliés au Québec et à l'exception des cas où la loi en vigueur l'interdit, toutes les autres garanties et conditions, expresses ou implicites, découlant de la loi, d'un règlement, de la conduite habituelle ou de l'usage du commerce, y compris, mais sans en être limité, les garanties ou les conditions implicites de qualité marchande et d'adaptabilité à une utilisation ou à une fin particulière, et/ou d'absence de contrefaçon. **Limites** (non applicables aux consommateurs-acheteurs domiciliés au Québec, dans la mesure où la loi en vigueur au Québec l'interdit) : a) Sharp ne sera en aucun cas responsable des dommages accessoires, spéciaux, consécutifs, économiques, exemplaires ou indirects de quelque type ou nature que ce soit (y compris la perte de profits ou les dommages par suite de la perte de temps, d'utilisation ou de données) découlant de l'utilisation ou du rendement d'un produit ou de la défectuosité d'un produit, même si Sharp est informé ou a été avisé de la possibilité de tels dommages; b) les recours mentionnés dans la présente garantie limitée constituent l'exécution intégrale de toutes les obligations et responsabilités de Sharp envers l'acheteur à l'égard du produit et constituera la satisfaction entière de toutes les réclamations, qu'elles soient en fonction d'un contrat, d'une négligence, d'une responsabilité stricte ou autrement.; Dans certaines provinces, il est interdit d'exclure ou de limiter l'application de certains dommages ou de certaines limites sur la durée ou l'annulation de certaines garanties ou conditions implicite. Par conséquent, dans ces provinces, les exclusions et les limites indiquées aux présentes peuvent ne pas s'appliquer. La présente garantie limitée est, sauf pour les consommateurs-acheteurs domiciliés au Québec, régie par les lois de la province canadienne dans laquelle l'acheteur a acquis le produit. Pour les consommateurs-acheteurs domiciliés au Québec, la présente garantie limitée est régie par les lois du Québec.

PÉRIODES DE GARANTIE (calculées à partir de la date d'achat originale) : Pièces et main-d'œuvre (exceptions relevées)

Produits audio	1 an
Produit Blu-Ray	1 an
Projecteur	1 an (lampe 90 jours)
TV ACL/DEL	1 an
Four à micro-ondes	1 an (magnétron – 4 ans supplémentaires)
Purificateur d'air	1 an
Climatiseur portatif	1 an
Générateur d'ions Plasmacluster	1 an
Lunettes 3D	1 an
Adaptateur de réseau local sans fil	1 an

Pour connaître le nom et l'adresse du détaillant autorisé au service ou du centre agréé de service Sharp le plus près, ou pour obtenir davantage de renseignements sur la présente garantie limitée, sur les offres de garantie prolongée de Sharp ou sur les ventes de produits ou d'accessoires Sharp, veuillez communiquer avec Sharp :

- En écrivant à Sharp Électronique du Canada Ltée, 335 Britannia Road East, Mississauga (Ontario) L4Z 1W9
- En appelant au 905 568-7140
- En visitant notre site Web : www.sharp.ca

LA SATISFACTION DE NOS CLIENTS LE SERVICE SHARP NOUS PLACE AU PREMIER RANG

CETTE GARANTIE LIMITÉE EST VALIDE UNIQUEMENT AU CANADA.

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SHARP®

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SHARP CORPORATION

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